

TENTH
ANNUAL REPORT
ON THE CONDITION
OF THE
COMBINED SANITARY DISTRICT
OF
WEST SUSSEX.

BY
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Horsham.....	29	East Preston	83	Worthing	144
Petworth.....	49	Midhurst	109	Littlehampton	158

TABLE II.—Showing the Deaths and Death-rate in each of the nine years, 1875—83, from Zymotic Diseases,

Steyning.....	11	Thakeham	67	Westbourne	123
Horsham	29	East Preston	83	Worthing	144
Petworth	49	Midhurst	109	Littlehampton	158

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Petworth	52	Midhurst	112		

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Horsham	33	East Preston	87		
Petworth	53	Midhurst	113		

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TENTH ANNUAL REPORT

ON THE

HEALTH OF THE COMBINED SANITARY DISTRICT OF
WEST SUSSEX.

RURAL SANITARY DISTRICT OF STEYNING.

POPULATION, 14,060 IN 1871; 16,325 IN 1881. AREA IN
ACRES, 45,969. NO. OF HOUSES, 2659 IN 1871; 3080 IN 1881.

DURING the year 1883 the births of 528 children and the deaths of 279 persons were registered; of the births 250 were male and 278 were female; of the deaths 150 were male and 129 were female.

There were only 264 deaths registered in the rural sanitary district. The remaining 15 deaths occurred in the Shoreham Workhouse which is outside the district, and these deaths have been distributed among the several parishes whence each inmate came, viz:—Patcham 1, Portslade 4, Southwick 3, Lancing 2, Old Shoreham 1, Sompting 1, Steyning 2, and Shermanbury 1, in all 15.

In each parish the deaths were as follows:—Preston 2, Patcham 15, West Blatchington 0, Hangleton 1, Portslade 76, Aldrington 14, Southwick 45, Kingston 3, Lancing 12, Old Shoreham 5, Sompting 6, Coombes 0, Botolphs 1, Bramber 3, Steyning 23, Upper Beeding 8, Edburton 1, Poynings 8, Woodmancote 3, Henfield 38, Ashurst 5, and Shermanbury 10, in all 279.

The births and deaths in the whole of the district during the past nine years have been thus distributed:—

Year.		Births.	Birth-rate.	Deaths.	Death-rate.
1875	..	438	29·4	243	16·3
1876	..	465	30·8	242	16·0
1877	..	482	31·4	244	15·9
1878	..	513	33·0	243	15·6
1879	..	499	31·6	196	12·4
1880	..	546	34·1	243	15·2
1881	..	544	33·3	197	12·0
1882	..	582	34·8	251	15·0
1883	..	528	31·0	279	16·4

POPULATION.—The population in this district according to the recent census returns is given as 16,325; the males exceed the females, there being 8401 males and only 7924 females. Up to five years of age the numbers are very nearly equal, but from five years up to forty years the females are in a majority, after which time the numbers are again very nearly equal. The difference between the sexes is most marked between ten years and twenty years of age, a time when many young girls leave the villages to find occupation, or to enter service, in towns. Portslade, Southwick and Aldrington are growing places and contain an excess of young married people; hence the birth-rate is much higher in these parishes than in other parts of the district. Three parishes in the Shoreham sub-district, Old Shoreham, Sompting and Coombes, show a slight decrease from the numbers existing at the previous census, while the other ten parishes show a more or less marked increase. Two parishes in the Steyning sub-district, Ashurst and Shermanbury, have declined in population, while the other seven parishes show a slight increase which is, however, much less marked than in the other sub-district.

In each quarter the births and deaths were as follows:—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	59	74	133	33	40	73
2nd	„	76	64	140	46	31	77
3rd	„	63	66	129	30	23	53
4th	„	52	74	126	41	35	76
Total ..		250	278	528	150	129	279

More females were born than males, and this has been the case four times within the last seven years; in most rural districts there is an excess of male births.

A comparative statement of the births in each quarter for a term of five years shows that the mean number varies very slightly, being rather higher in the third quarter than in any other.

		1879—81.	1882.	1883.	Total.	Mean.
1st Quarter	..	405	140	133	678	136
2nd	„	380	160	140	680	136
3rd	„	418	139	129	686	137
4th	„	386	143	126	655	131
Total ..		1589	582	528	2699	540

During the past five years there have been 2699 births and 1166 deaths. The natural increase of population during this period by excess of births over deaths was, therefore, 1533. The estimated increase of population during the same period is

1470, this diminution being due to the migration going on in the rural portions of the district.

The following table shows the birth-rate in the more important parishes and in the rest of the district:—

	Mean of 1877-80.	1881.	1882.	1883.	Mean of 1877-83.
Portslade Parish ..	36·7	48·8	43·0	41·5	39·6
Southwick Parish ..	34·2	34·7	35·6	33·3	34·3
Rest of Shoreham S.D.	27·7	27·0	34·5	22·0	27·4
Steyning Parish ..	33·9	27·5	32·2	27·4	31·8
Henfield Parish ..	29·5	25·3	30·0	29·4	29·0
Rest of Steyning S.D.	35·5	28·7	27·4	31·2	32·8
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Total ..	32·5	33·3	34·8	31·0	32·7

Portslade has rapidly increased in size during the last few years, and since this place contains a large excess of young married people the births are much more numerous than in an agricultural community. The birth-rate of Southwick is also high through similar causes.

The *birth-rate* in 1883 throughout England and Wales was equal to 33·2 per 1000 persons estimated to be living in the middle of the year; it showed according to the Registrar-General a further slight decline from the steadily decreasing rates in the six preceding years, and it was lower than that recorded in any year since 1849, when it was so low as 32·9.

The deaths at different groups of ages in each quarter are here shown:—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Total.
1st Quarter ..	16	8	4	5	19	21	73
2nd „ ..	14	11	8	4	16	24	77
3rd „ ..	17	6	2	1	16	11	53
4th „ ..	11	8	7	11	15	24	76
<hr/>							
Total ..	58	33	21	21	66	80	279

A comparative statement of the deaths in each quarter during the past nine years shows that the deaths are most numerous in the first quarter of the year, while in the remaining quarters they are nearly equal.

	1875—80.	1881.	1882.	1883.	Total.	Mean.
1st Quarter ..	428	50	72	73	623	69
2nd „ ..	360	41	48	77	526	58
3rd „ ..	310	57	68	53	488	54
4th „ ..	313	49	63	76	501	56
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Total ..	1411	197	251	279	2138	237

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Dths. under 1 year.	Ratio to 1000 Births
Portslade Parish	166	23	138
Southwick „	85	14	164
Rest of Shoreham Sub-district ..	95	10	105
Steyning Parish	46	2	43
Henfield „	56	5	89
Rest of Steyning Sub-District ..	80	4	50
<hr/>			
Whole of District	528	58	110

The rate of infant mortality throughout England and Wales was equal to 137 per 1000, against 130 and 141 in the two preceding years.

The following table shows the rate of infant mortality in the different localities during the past eight years; it is much lower in the more rural than in the more populous parts of the district:

	Mean of 1876-81.	1882.	1883.	Mean of 1876-83.
Portslade Parish	125	95	138	123
Southwick „	139	133	164	141
Rest of Shoreham Sub-District	105	104	105	105
Steyning Parish	88	111	43	85
Henfield „	63	70	89	66
Rest of Steyning Sub-District	71	71	50	69
<hr/>				
Total	104	99	110	104

The 58 *infantile deaths* in 1883 included one from whooping-cough, one from enteric fever, five from diarrhœa, one from hydrocephalus, eight from convulsions, twelve from lung diseases, twenty-one from debility at birth, four from premature birth, one from malformation, three from teething and one from natural causes.

The deaths from *zymotic*, or catching, disorders were 46 in number against 27, 39, 15, 35, 12, 46, 17 and 50 in the eight preceding years.

The 46 deaths included four from measles, seven from scarlatina, sixteen from diphtheria, three from whooping-cough, one from typhus, seven from enteric fever, seven from diarrhœa and one from rheumatic fever.

The rate of mortality from these diseases was 2·7 per 1000 persons living against a rate of 1·8, 2·5, 0·9, 2·2, 0·7, 2·8, 1·0 and 3·0 in the eight preceding years. In the past nine years there have been altogether 287 deaths from this class of disorders, or a mean annual rate of 2·0 per 1000.

Diphtheria.—A serious outbreak of diphtheria appeared at Henfield in the autumn of the year. The disease did not appear so much in the village itself as in the outlying parts of the parish and in cottages a long way apart from each other.

Case 1.—Early in August, a girl, 8 years old, was attacked and she died on August 16th. A brother, 9 years old, fell ill on August 26th and he recovered, but he had a relapse, or second attack, in October, when he died. The parents and four other children lived in this cottage but they were not attacked, nor was there any case in the adjacent cottage. These two houses were a long way off the village and they stood on clay soil, overlooking some low-lying brooklands. There were several nuisances here arising from the dirty habits of the inmates and the way in which a pig and some poultry were kept. The children were delicate and the mother, who was quite young, had had her children rapidly.

Case 2.—At a cottage in the village occupied by a widow and five children, a boy, 8 years old, was taken ill in August and he recovered; his brother, 19 years old, fell ill on October 6th and he died on October 10th. No other inmates were attacked and although there were several cottages near, no one else had diphtheria and there were no fresh cases in this locality. There were no defects in this house except a trapped drain in a wash-house, but this was well kept and flushed.

Case 3.—At Shiprod's, a lonely spot, there are two well-built cottages and in one of these a boy, 8 years old, fell ill on October 16th and he died on October 23rd. The parents were not attacked, nor was anyone taken ill in the adjacent cottage where there were several young children.

This cottage was kept very clean and neat and the rooms were large and airy, and, as there were only three inmates, there was no overcrowding. The water was of good quality, the closet was well kept and at some distance from the house, and the only defect was a small trap inside the scullery which has since been removed. This trap was kept clean and it was often flushed.

Case 4.—At another lonely spot, about half a mile distant, there was a small house and a very large family. The mother was first attacked and then in turn the nine children failed; the father was also poorly. The inmates of this cottage were very poor and the children were in delicate health and unfit to stand an attack of acute disease. A nurse was provided and plenty of nourishment was given when the illness commenced, but the mother and four of the children died of the disorder. The rest recovered and then they were sent to the Shoreham workhouse which is outside this district. These children carried the disease into the workhouse and in a short time, twenty-eight inmates had diphtheria, all of whom recovered.

Case 5.—At an old brickyard near Broadmere Common in a

cottage occupied by 4 adults and 3 children, an infant, 15 months old, was attacked and died in November; no other person here was taken ill.

Case 6.—On the opposite side of the Common there are several cottages and in one of them, occupied by the parents and four young children, there were two cases; a boy, 8 years old, fell ill on November 1st, and he recovered; a sister, 5 years old, fell ill on November 4th, and she died on November 10th. This was a well-built, dry cottage in which there were no drains. No other cases occurred in this or in any neighbouring cottage.

Case 7.—In another excellent cottage, about half-a-mile from the village, a young woman, in delicate health, was attacked in November and she died; the parents and two young children who lived in the house escaped.

In these six houses there dwelt 17 adults and 29 children; in these, 4 adults and 16 children were attacked and 3 of the adults and 9 of the children died, thus making 12 deaths out of 20 cases, or a mortality of 60 per cent among those attacked. In no case did the disease spread from one house to any adjacent house. There was nothing in common among these cottages with regard to water-supply, drainage, or social intercourse. Many of them lived at distances some miles apart. School attendance did not appear to have any influence and the schools themselves were in a very fair condition. The only thing in common to the cases seemed to be the nature of the soil. All those affected dwelt on a cold clay soil, and many of them near the edge of a common or of brooklands. There were no cases at all on the porous sandy soil on which most of the village of Henfield is built. In the autumn of the year when the nights are cold and when there are heavy dews and fogs on the low-lying lands, sore throats and diphtheria are common. All the children who were first attacked had to go long distances to school, and thus they were more exposed to conditions of cold and damp. In two instances the people were dirty and their surroundings were bad, in two they were clean, and in two others, the inmates were not only clean but their cottages were excellent and free from sanitary defects. None of the Schools were closed. Each house was well fumigated and cleansed after the illness and the outbreak ceased at the middle of November.

Enteric Fever.—There were seven deaths ascribed to this cause.

In one case early in March, a boy, aged 14 years, brought the disorder home from a town where he had been staying and he died a week afterwards. There were no sanitary defects in this house and there were no other cases. At Poynings, several children were ill and one infant died. In one house occupied by a man, wife and four children, a boy, aged 7 years, was taken ill on Christmas Day, 1882 and early in February, 1883, the mother and two younger children fell ill; they all recovered

except the baby. In another cottage at Poynings, occupied by a man, wife and 3 children, a boy, 10 years old, was poorly in February and a sister, 5 years old, was unwell but they had no medical attendance. In another cottage a pupil teacher who always had delicate health was taken ill, but she recovered. All the first cases were among those attending Poynings school and this seemed to be the only cause common to all. The school was in a very dirty condition and the boy's closets were very foul. The managers of the school had the place lime-washed and cleansed and there were no more cases.

A death from enteric fever took place at Shermanbury in the month of May at a large roomy old house in a lonely situation; the house was occupied by a man, wife and six children. There were no drains in the house and the place was kept very neat and clean. At the end of the garden there was a closet furnished with an iron tub so that the contents could be occasionally emptied and mixed with earth or ashes. This was done on April 28th, when the children were playing about, the smell at the time being very offensive.

One of the boys, 8 years of age, fell ill on May 7th and he died on May 30th; another boy, who was present also, had a sore throat for a week; the other children escaped. This boy had not been away from home for months nor had they had any visitors in the house; the water was of good quality and there was no reason to suspect the milk supply. It appears that the boy was much affected by the smell when the closet was being emptied and this seemed to be the only cause of the illness. This case seems to show that enteric fever may originate from filth alone without there having been any pre-existent case, and this fact has been noticed on several previous occasions.

An infant, 7 months old, died at Patcham of fever and there were two or three deaths in the autumn but these cases call for no special remark.

Typhus Fever.—There was one death recorded from this cause at Kingston where a woman, 33 years old, died on January 24th. There was no history of any previous case, nor had she apparently been exposed to contagion, nor was there any spread of the disease.

Scarlet fever and *measles* were very prevalent throughout the year in various parts of the district.

Lancing.—Many complaints were made during the summer of the state of the dyke which runs parallel to the main road and which on several occasions was in a most offensive condition. This dyke was the subject of similar complaints in 1876 and in 1877, and Mr. Harrison, an Inspector of the Local Government Board, came to visit the spot. Many years ago, the water from the low-lying brooks near Worthing, passed in an eastward direction in front of Lancing, and it ran in a wide shallow

channel for about half a mile nearly parallel to, and in some places very close to, the main road from Lancing to Shoreham. The water then passed through a sluice gate into the sea at a spot to the east of Lancing. Between the dyke and the sea and forming the south boundary of this wide and shallow channel there is a bank of shingle, over which the sea breaks in very stormy weather and then the channel is filled with a great volume of water. In course of time the sea has so far encroached on the old coast line that this bank of shingle has been pushed nearer to Lancing, whereby the width of the old channel has been greatly reduced. Each end of the channel has been blocked by the advancing shingle, so that the water from the Worthing brooks no longer flows this way, and at the other end the sluice gate no longer exists. Thus instead of a running stream, there is a shallow dyke about 7 or 8 yards wide, which is filled with water, which is at times in an offensive condition. When the tides are high the sea water either percolates through the shingle or it flows over the top of the bank, but when the tides are low there is but little water in the ditch. Every now and then during a great storm large quantities of seaweed are washed over the bank and as the waters recede the surface of the low-lying channel inside the shingle is covered with seaweed which in hot weather soon decomposes and gives off most offensive smells. A great quantity of this seaweed is removed by the market gardeners but some remains mixed with the shingle or with the water in the ditch. There are near here nine or ten private houses and also a large school, and the occupiers justly complain of the nuisance. There is a small quantity of sewage passing into the dyke from these houses, but the nuisance from this source is not very perceptible. The chief source of the nuisance arises from the decomposing seaweed. The only remedy seems to be to fill up the dyke for about 200 yards where it passes just in front of the houses. In a few years this will be done by the action of the sea, but in the mean time the Sanitary Authority have called upon the owners to fill up the dyke. Nothing has been done at present, but the filling up could be effected by removing the shingle from the bank and placing it in the hollow channel. Every year the sea is making rapid encroachments and already there is a great gap in the main road close to Lancing.

There are many market gardens at Lancing and at the adjacent village of Sompting, so that a large quantity of manure is used upon the land, and much of this manure comes from Brighton and Portsmouth by rail and the trucks are unloaded at the station at Lancing. So long as ordinary stable manure is sent there does not appear to be any great nuisance, but sometimes other things are sent, as fish offal, rags, contents of dust bins and ash-heaps, &c. When such materials are wetted by a shower

of rain, and when they are exposed in a truck to the action of a hot sun, the smell given off is singularly offensive and the whole mass becomes very much heated. The Sanitary Authority wrote to the Railway Company on the matter, and since then there have been no complaints. The fault lies not so much with the Railway Company, for they are perhaps bound to convey goods that are brought to their station, but rather with the corporations of large towns who do not deal with their own nuisances, but simply send away the town refuse as easily as they can.

In spite of these defects, about which many of the residents complain, the health of Lancing is very good and there is very little infectious disease there which can be ascribed to these nuisances.

The following summary shows the improvement that has taken place in this district in recent years, and it may be looked upon as a continuation of a similar table to be found in the sixth annual report. Similar facts for different parts of the district will be found in the appended tables which are so constructed as to make a comparison over a term of years an easy matter.

Per 100,000 Persons living.	1851-60.	1861-70.	1879-83.
All ages, both sexes.			
General Death-rate ..	1597	1614	1422
Zymotic ,, ..	326	342	207
Phthisis ,, ..	197	201	144
Lung Disease ,, ..	189	192	175
	386	393	319
15 to 55 years.			
Phthisis Death-rate ..	{ 295 mean 304 female	{ 288 mean 309 female	{ 239 mean 261 female
Lung Disease ,, ..	{ 68 mean 50 female	{ 60 mean 39 female	{ 37 mean 5 female
Under 1 year	14101	14543	10946
Under 5 years	4826	5035	3358

There were five deaths returned as "not certified" out of a total of 279:—Male, eighty-three years, paralysis; female, sixteen months, convulsions, teething; female, one day, natural causes; female, seventy-two years, heart disease; male, fifty-nine years, probably the bursting of a blood vessel near the heart.

There were two deaths of children born out of wedlock in the Steyning sub-district:—male, five years, diphtheria, certified; male, fifteen months, diphtheria, certified. The returns from the Shoreham sub-district give no information upon this point. In the Steyning sub-district there were 11 illegitimate out of 500 births, giving a rate of 2·2 per cent; of these 7 belonged to Henfield, 2 to Steyning and 2 to the rest of the sub-district. In the Shoreham sub-district there were 41 children born out of wedlock out of 1000 births thus giving a rate of 4·1 per cent. Of these 41 mothers, 28 were domestic servants, 5 were engaged in laundry work, 3 were dressmakers, 2 were housekeepers, 1 was a governess, 1 was a milliner and 1 was an upholsteress. Of these 41 illegitimate births which occurred from December 1st, 1882, to September 7th, 1883, 21 belonged to Hove, 7 to Portslade, 5 to New Shoreham, 3 to Preston, 1 to Southwick and 4 to the rest of the sub-district.

Inquests were held in seventeen cases:—male, five months, convulsions and spasm of glottis; male, sixty-three years, suicide by hanging; male, ten months, convulsions; female, nineteen years, general peritonitis by taking poison; male, fifty-one years, failure of heart's action; male, fifty-seven years, fall from loft; male, seven years, drowned; male, seven months, hydrocephalus; male, seventeen years, accidentally drowned; male, twenty-five years, syncope; male, forty-five years, found dead; male, forty-five years, rupture; male, seventeen years, run over; male, fifty-five years, congestion of brain; male, thirty years, found dead, probably drowned; male, age unknown, found dead from gunshot wound in head; female, thirty-eight years, accidental fall from a cart.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

No cases occurred in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

There is no common lodging house in the district.

No proceedings were taken before the magistrates during the year.

STEYNING RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 9 years, 1875-83.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over
1875	243	65	11	11	15	48	93
1876	242	54	40	9	12	60	67
1877	244	53	21	10	11	75	74
1878	243	60	35	8	11	49	80
1879	196	41	18	6	10	53	68
1880	243	61	28	15	13	47	79
1881	197	48	14	3	10	44	78
1882	251	58	40	18	12	52	71
1883	279	58	33	21	21	66	80
Total	2138	498	240	101	115	494	690
In 1000 Deaths.....	1000	233	112	47	54	231	323

TABLE 2.—Showing the Deaths and Death-rate in each of the 9 years 1875-83, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid.	Other.							
1875...	5	7	..	2	2	8	..	3	..	..	27	1·8
1876...	..	3	12	4	3	..	3	2	11	..	..	..	1	39	2·5
1877...	3	2	1	..	1	1	3	..	2	..	2	15	0·9
1878...	..	1	..	2	11	2	..	..	16	..	1	..	2	35	2·2
1879...	1	1	2	..	3	1	1	..	2	1	..	12	0·7
1880...	..	8	..	..	12	..	3	..	20	..	1	..	2	46	2·8
1881...	1	..	..	2	..	..	4	..	7	..	2	1	..	17	1·0
1882...	..	2	4	8	23	..	3	2	6	..	1	..	..	50	3·0
1883...	..	4	7	16	3	1	7	..	7	1	..	..	..	46	2·7
Total.	1	18	27	40	62	3	26	8	79	2	12	2	7	287	2·0

STEYNING RURAL SANITARY DISTRICT

TABLE 3.—Showing the Deaths and Death-rate from all causes and

PARISH.		Population in the middle of the period.	Mean annual death-rate per 1,000, all ages.	Deaths from all causes in			
				1875-80.	1881.	1882.	1883.
Shoreham Sub-District.	Preston	31	10·7	..	1	..	2
	Patcham	840	11·6	51	14	8	14
	West Blatchington	56	7·9	3	1	..	..
	Hangleton	70	11·0	4	1	1	1
	Portslade	3460	14·8	286	41	60	76
	Aldrington	120	33·3	8	4	9	14
	Southwick	2466	15·8	239	30	37	44
	Kingston	258	19·3	36	2	3	8
	Lancing	1300	11·8	93	10	23	12
	Old Shoreham ..	245	14·0	19	2	5	5
	Sompting	680	13·2	61	8	5	6
	Coombes	70	14·2	7	..	2	..
Steyning Sub-District.	Botolphs	90	16·0	10	..	2	..
	Bramber	185	10·2	9	..	4	8
	Steyning	1670	16·5	165	29	31	28
	Upper Beeding ..	605	17·0	65	12	8	8
	Edburton	330	12·1	24	3	8	1
	Poynings	310	15·7	22	7	7	8
	Woodmancote ..	340	10·4	24	3	2	8
	Henfield	1886	17·0	205	22	25	38
	Ashurst	380	15·2	39	2	6	8
	Shermanbury ..	368	18·4	41	5	5	10
Whole District		15760	15·0	1411	197	251	275

STRICT, 1875-83.

in various causes in each Parish in the nine years.

Parish nine years.	Mean annual num- ber of deaths.	Total deaths in nine years from			Mean annual death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease	Zymotic Disease.	Phthisis.	Lung Disease.
3	0.3	1	..	1	358	..	358
88	9.7	10	10	10	132	132	132
4	0.4	2	..	..	396	..	..
7	0.7	..	2	3	..	317	476
463	51.4	91	44	66	292	141	211
35	3.9	7	1	5	648	92	463
351	39.0	46	34	48	207	153	216
44	4.9	7	4	5	301	172	215
138	15.3	17	13	17	142	111	142
31	3.4	5	3	2	126	136	80
80	8.9	5	10	9	81	163	147
9	1.0	..	3	..	..	476	..
13	1.4	1	1	4	123	123	493
16	1.8	1	4	1	60	240	60
248	27.5	26	30	46	173	200	306
93	10.3	9	11	16	165	202	293
36	4.0	5	3	1	168	100	33
44	4.9	5	10	7	179	358	238
32	3.5	2	9	4	65	294	130
290	32.2	34	30	35	200	176	206
52	5.8	3	5	11	87	146	321
61	6.7	10	5	6	301	151	181
138	237.5	287	232	297	202	163	209

STEYNING RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 9 years, 1875-83.

PARISH.	Population in 1883.	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Continued Fevers			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.
Preston	90	..	..	..	1	..	..	..	1	1	..	..	..	..	1
Patcham ..	900	..	..	1	..	..	1	..	7	..	..	..	..	..	10
W. Blatchington	60	1	..	..	..	..	..	..	..	..	..	1	..	..	2
Hangleton	80	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Portslade	4020	..	4	15	6	23	..	6	32	1	..	1	1	1	91
Aldrington	400	..	1	2	..	..	..	2	4	..	..	3	..	..	7
Southwick	2550	..	4	4	4	9	3	..	17	..	..	2	..	..	46
Kingston	265	..	..	..	1	1	..	1	1	..	..	1	..	..	7
Lancing	1400	..	3	..	2	7	..	1	3	..	..	1	..	..	17
Old Shoreham ..	250	..	..	..	1	..	..	2	1	..	..	..	..	..	5
Sompting	680	..	..	..	..	1	..	1	2	2	..	..	..	..	5
Coombes	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Botolphs	95	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Bramber	190	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Steyning	1675	..	1	..	5	8	..	4	6	1	..	1	..	..	26
Upper Beeding..	615	..	..	..	3	1	..	2	2	..	..	1	..	..	9
Edburton	345	..	1	..	1	1	..	..	..	..	..	1	..	1	5
Poynings	320	..	2	..	..	..	..	2	..	..	..	..	..	1	5
Woodmancote ..	350	..	..	1	..	..	..	..	..	..	..	..	..	1	2
Henfield	1905	..	..	2	16	5	1	3	2	1	..	2	..	2	34
Ashurst	376	..	1	..	..	1	..	1	1	..	..	..	..	..	3
Shermanbury ..	364	..	1	2	..	3	..	..	..	..	..	..	1	1	10
Whole District..	17000	1	18	27	40	62	3	26	8	79	2	12	2	7	287

Shoreham Sub-District.

Steyning Sub-District.

STEYNING RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 9 years 1875—83.

LOCALITY.	Deaths during the 9 years 1875—83, from						Annual Death rate per 100,000 living from				
	Population in middle of period.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Portslade Parish.....	3460	463	91	44	66	28	1486	292	141	211	90
Southwick Parish	2466	351	46	34	48	24	1581	207	153	216	108
Rest of Shoreham Sub-dist..	3760	452	55	47	56	35	1335	162	139	165	103
Steyning Parish	1670	248	26	30	46	11	1650	173	200	306	73
Henfield Parish	1886	290	34	30	35	35	1708	200	176	206	206
Rest of Steyning Sub-dist..	2518	334	35	47	46	26	1473	154	207	203	114
Whole District	15760	2138	287	232	297	159	1507	202	163	209	112
In 1875	14880	243	27	23	53	24	1633	181	154	356	161
In 1876	15090	242	39	24	38	19	1603	258	159	251	125
In 1877	15310	244	15	37	25	16	1593	98	241	163	104
In 1878	15530	243	35	30	38	12	1564	225	194	244	77
In 1879	15760	196	12	29	30	17	1243	76	184	190	107
In 1880	15990	243	46	21	37	14	1519	287	131	231	87
In 1881	16315	197	17	14	19	16	1207	104	85	116	98
In 1882	16700	251	50	25	20	18	1503	300	150	120	108
In 1883	17000	279	46	29	37	23	1641	270	170	217	135

TABLE A.—Showing the Deaths during the year 1883, in the Rural District of Shoreham, also the Population of such Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								12
	Census 1881	Estimated to middle of 1883.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11		
PORTSLADE PARISH	3719	4000	166	72	23	7	6	2	19	15	Under 55 5 upwds	
SOUTHWICK PARISH	2561	2550	85	42	14	7	2	3	8	8	Under 55 5 upwds	
REST OF SHOREHAM SUB-DISTRICT	3943	4310	95	54	10	7	3	6	13	15	Under 55 5 upwds	
STEYNING PARISH ...	1672	1675	46	21	2	3	—	2	6	8	Under 55 5 upwds	
HENFIELD PARISH ...	1890	1905	56	38	5	4	7	5	8	9	Under 55 5 upwds	
REST OF STEYNING SUB-DISTRICT	2540	2560	80	37	4	5	3	3	8	15	Under 55 5 upwds	
											Under 55 5 upwds	
											Under 55 5 upwds	
											Under 55 5 upwds	
											Under 55 5 upwds	
											Under 55 5 upwds	
TOTALS ..	16325	17000	528	264	58	33	21	21	61	70	Under 55 5 upwds	
Deaths occurring outside the district among persons belonging thereto				15	—	—	—	—	5	10	Under 55 5 upwds	
Deaths occurring within the district among persons not belonging thereto											Under 55 5 upwds	

TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the
District of STEYNING, classified by Localities.

NAMES OF LOCALITIES. 1	NEW CASES OF SICKNESS, IN PERSONS BELONGING TO THE DISTRICT OF STEYNING, CLASSIFIED BY LOCALITIES.						
	12	Smallpox 31	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough. 18
Portslade Parish.	Under 5 5 upwds.	.....	.....	..... 1	.....	.....	.....
Southwick Parish.	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
Rest of Shoreham Sub-Dis.	Under 5 5 upwds.	.....	..... 2	1	1 3	.....	.....
Steyning Parish.	Under 5 5 upwds.	.....	.....	.....	.....	.....	1 1
Henfield Parish.	Under 5 5 upwds.	.....	.....	.....	3 6	.....	.....
Rest of Steyning Sub-Dis.	Under 5 5 upwds.	.....	1	6 10	..... 1	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
Totals.....	Under 5 5 upwds.	.....	1 2	7 11	4 10	.....	1 1

SOURCES OF INFORMATION :—In Workhouse and Workhouse Infirmary patients of Workhouse and Workhouse Infirmary.

Medical Officer of Health, during the year 1883, in the Rural Sanitary
 according to Localities and Diseases.

THE DISTRICT DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS
 AGE.

Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever.	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox, or Pneu- monia, which the Medi- cal Officer of Health thinks well to record.	
21	22	23	24	25	26	27	28		
3	.....	....	.....	.....	.....	.....	.....	.....	.....
1	4	....	....	1	.....	.....	.....	.....	.....
.....	5	.....	.....	1	.....	.....	.....	.....	.....
.....	4	.....	.....	1	.....	.....	.....	.....	.....
.....	1	.....	.....	.....	.....	.....	.....	.....	.....
.....	4	.....	.....	.....	.....	.....	.....	.....	.....
.....	1	.....	1	.....	.....	.....	.....	.....	.....
.....
.....
.....
.....
.....
.....
.....	1	.....	.....	.....	.....	.....	.....	.....	.....
4	18	.....	1	3	.....	.....	.....	.....	.....

g Out-door Paupers, 505. In-patients of Worthing Infirmary, 6. Out-
 ary, 54.

RURAL SANITARY DISTRICT OF HORSHAM.

POPULATION, 14,131 IN 1871; 15,426 IN 1881. AREA IN ACRES, 69,706. NO. OF HOUSES, 2781 IN 1871; 3013 IN 1881.

DURING the year 1883 the births of 480 children and the deaths of 202 persons were registered; of the births 244 were male and 236 were female; of the deaths 122 were male and 80 were female.

There were 215 deaths registered as occurring in the Rural Sanitary District but thirteen of these deaths belonged to the Horsham Urban Sanitary District, although they died in the Union Workhouse which is in the rural portion of the district.

There were during the year, 36 deaths in the Union Workhouse; of these, thirteen did not belong to this district, and the remaining twenty-three have been distributed among the several parishes whence each inmate came, viz., Horsham 6, West Grinstead 2, Shipley 1, Nuthurst 4, Lower Beeding 4, Ifield 2, Rusper 1, Warnham 1, Slinfold 1, and Itchingfield 1, in all 23.

In each parish the deaths were thus distributed:—Horsham (part of) 7, West Grinstead 25, Shipley 14, Nuthurst 13, Horsham (part of) 32, Lower Beeding 20, Ifield 23, Crawley 3, Rusper 7, Warnham 14, Slinfold 16, Itchingfield 5, Rudgwick 7, and Billingham 16, in all, 202.

The births and deaths in the whole of the district during the past eight years have been as follows:—

Year.		Births.	Birth-rate.	Deaths.	Death-rate.
1876	..	449	31·3	243	16·9
1877	..	455	31·5	182	12·6
1878	..	490	33·5	204	13·9
1879	..	499	33·8	241	16·3
1880	..	444	29·0	217	14·1
1881	..	503	32·4	197	12·7
1882	..	487	31·0	198	12·6
1883	..	480	30·3	202	12·7

POPULATION,—The recent census returns show that in this district there are more males than females and this seems to be

the case in all the rural parts of West Sussex. The distribution of the population at various groups of ages is here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwards.	Total.
Male ..	216	870	2002	1322	2758	747	7915
Female..	231	814	1879	1186	2764	637	7511

The greatest disparity in the sexes is from ten to twenty years of age, while at other periods of life the numbers are very nearly equal.

Since the death-rates of the two sexes are nearly equal from ten to twenty years it follows that the main cause of the difference in the numbers must be found in young girls leaving the district to seek employment in domestic service in towns.

During the past five years there have been 2413 births and 1055 deaths. The natural increase of population during this period by excess of births over deaths was, therefore, 1358. The estimated increase of population during the same period is only 800, so that there is a continual migration going on into other districts. In the middle of 1880, the population was considerably increased by the addition of Crawley to this Union.

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	62	69	131	34	22	56
2nd	„	58	64	122	35	27	62
3rd	„	60	67	127	21	20	41
4th	„	64	36	100	32	11	43
Total ..		244	236	480	122	80	202

The births appear to be most numerous in the first and third quarters of the year :—

		1879—81.	1882.	1883.	Total.	Mean.
1st Quarter	..	365	132	131	628	125
2nd	„	345	114	122	581	116
3rd	„	387	113	127	627	125
4th	„	349	128	100	577	116
Total ..		1446	487	480	2413	482

The following table shows the birth-rate in each sub-district during the past seven years and it shows that the rates are very nearly uniform throughout the Union :—

	Mean of 1877-80.	1881.	1882.	1883.	Mean of 1877-83.
South Sub-District ..	32·3	34·7	32·9	24·5	31·6
North Sub-District ..	31·3	30·8	30·4	32·1	31·2
West Sub-District ..	32·5	32·9	30·3	32·7	32·3
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total ..	31·9	32·4	31·0	30·3	31·6

The *birth-rate* in 1883 throughout England and Wales was equal to 33·2 per 1000 persons estimated to be living in the middle of the year; it showed according to the Registrar-General a further slight decline from the steadily decreasing rates in the six preceding years, and it was lower than that recorded in any year since 1849, when it was so low as 32·9.

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Total.
1st Quarter ..	8	5	3	1	15	24	56
2nd „ ..	9	5	1	1	23	23	62
3rd „ ..	9	4	3	2	13	10	41
4th „ ..	6	1	2	4	10	20	43
	—	—	—	—	—	—	—
Total ..	32	15	9	8	61	77	202

On examining Table 1, it will be found that less than one-fifth of the deaths are under one year of age, while more than one-third are sixty years of age and upwards.

A comparative statement of the deaths in each quarter during the past eight years shows that the deaths are most numerous in the first and second quarters of the year :—

	1876—80.	1881.	1882.	1883.	Total.	Mean.
1st Quarter ..	307	46	53	56	462	58
2nd „ ..	305	59	47	62	473	59
3rd „ ..	251	57	48	41	397	49
4th „ ..	224	35	50	43	352	44
	—	—	—	—	—	—
Total ..	1087	197	198	202	1684	210

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Dths. under 1 year.	Ratio to 1000 Births
South Sub-District.. ..	101	7	69
North „ ..	249	16	64
West „ ..	130	9	69
	—	—	—
Whole of District	480	32	66

The rate of infant mortality throughout England and Wales was equal to 137 per 1000, against 130 and 141 in the two preceding years.

The following table show the rate of infant mortality during

the past eight years in each sub-district; the rate is pretty uniform throughout and in each locality it is low :—

		Mean of 1876-81.	1882.	1883.	Mean of 1876-83.
South Sub-District	..	91	103	69	89
North	„	83	90	64	82
West	„	101	50	69	91
		—	—	—	—
Total		89	84	66	85

The 32 *infantile* deaths included two from whooping-cough, one from erysipelas, one from chicken-pox, one from meningitis, one from convulsions, three from lung diseases, nine from debility, ten from premature birth, one from malformation, one from teething and two from accidental suffocation.

The deaths from *zymotic*, or catching, disorders were 17 in number against 27, 6, 14, 21, 26, 22 and 17 in the seven preceding years.

The 17 deaths included two from measles, one from scarlatina, five from whooping-cough, one from enteric fever, two from diarrhoea, one from rheumatic fever, three from erysipelas and two from puerperal fever.

The rate of mortality from these diseases was 1.0 per 1000 persons living against a rate of 1.8, 0.4, 0.9, 1.4, 1.6, 1.4 and 1.0 in the seven previous years.

In the past eight years there have been altogether 150 deaths in this class, or a mean annual rate of 1.2 per 1000.

The district was in a very healthy state during the year and there was no marked prevalence of any infectious disorder.

Small-pox was altogether absent.

Scarlet fever appeared in several places on various occasions but most of them were very mild; one child died at Warnham in February, and this was the only fatal case.

Measles was very prevalent in West Sussex during the year and it also appeared in this district; the two fatal cases occurred in the same house and in each case the cause of death was registered as due to rōtheln.

Enteric fever caused one death of a man, aged 41 years, at Shipley in December, but there were no other cases.

Diphtheria caused no deaths, though in the autumn of the year there were a few scattered cases.

There has been a great improvement in this district of late years and the inspection of it is very well carried out. With the exception of Ifield there is no large place which requires any system of drainage, but the general condition of the cottages is improved and the surroundings of the poor are in a much better condition than they were some years ago.

The following summary shows the improvement that has taken place in this district in recent years, and it may be looked upon as a continuation of a similar table to be found in the sixth annual report. Similar facts for different parts of the district will be found in the appended tables which are so constructed as to make a comparison over a term of years an easy matter.

Per 100,000 Persons living.	1851-60.	1861-70.	1879-83.
All ages, both sexes.			
General Death-rate ..	1765	1766	1371
Zymotic ,, ..	388	300	133
Phthisis ,, ..	261	212	150
Lung Disease ,, ..	246	326	242
	507	538	392
15 to 55 years.			
Phthisis Death-rate ..	{ 440 mean 518 female	{ 340 mean 428 female	{ 266 mean 261 female
Lung Disease ,, ..	{ 55 mean 57 female	{ 83 mean 69 female	{ 88 mean 49 female
Under 1 year	?	10716	9082
Under 5 years	3901	3921	2758

IFIELD AND CRAWLEY. In my last report a long account was given of a scheme for draining these places. Many meetings have taken place at which this drainage question has been discussed and various modifications in the scheme have been proposed, but no real progress has been made.

Early in January, a notice was issued by the Horsham Rural Sanitary Authority that an application would be made to the Local Government Board authorising the Authority to put in force the powers of the Lands Clauses Consolidation Act, 1845, and the Acts amending the same, with respect to the purchase and taking of the several pieces of land and hereditaments, situate in the parish of Ifield, otherwise than by agreement, for the disposal of sewage from the parishes of Ifield and Crawley, by filtration and irrigation or otherwise. The land proposed to be taken consisted of certain fields numbered 335, 334, 330, 359, 362 and 363 on the Ordnance Map.

A Local Government Inquiry was held at Ifield by Mr. J. T. Harrison, on February 8th, to enquire into an application made by the Horsham Rural Sanitary Authority to acquire by compulsory powers, certain lands required for the purposes of

the drainage of Crawley and Ifield.

Mr Hurst gave an account of what steps had hitherto been taken in the matter and Mr Kelsey described the scheme of drainage which he had prepared. Several ratepayers objected to the scheme, partly on account of the want of fall and partly on account of the expense. They suggested that the drainage might be taken to a field marked 42 on the Ordnance Map and treated by filtration instead of by irrigation. It was stated on behalf of the Sanitary Authority that if any more desirable scheme could be shown they would adopt it.

The petition of the Authority was granted, and on March 1st they received a draft of a provisional order which the Local Government Board proposed to issue for enabling the Authority to put in force the compulsory clauses above mentioned with reference to the purchasing and taking of the lands required for the disposal of the sewage of Ifield and Crawley.

This order was included in a Bill which received the Royal Assent on June 18th, and became the Local Government Board's Provisional Orders Confirmation Act, 1883. In the meantime the Vigilance Committee had brought forward a scheme, proposed by Mr Ramsay, and it was referred back to them by the Sanitary Authority in order that details and estimates of the scheme might be furnished.

In October, a meeting of the vestry in each parish was held, at which resolutions were passed, approving of such part of Mr. Kelsey's scheme as extended to the Sun Inn in Ifield parish, but suggesting that the sewage of the two parishes might be disposed of by lands adjacent thereto with a considerable diminution in expense. When these resolutions came before the Sanitary Authority they requested Mr Kelsey to inspect the land near the gas works at Crawley, to ascertain if the outfall of the drainage could be made in that neighbourhood, and if it could then be treated by Hanson's process. On November 7th, a committee of the Sanitary Authority was formed to meet and consider all questions in connection with the Crawley and Ifield drainage scheme and to report on the same.

On November 21st, this Committee advised that Mr. Kelsey prepare detailed plans for carrying out his scheme of drainage as far as the eastern side of the field, numbered 335 on the Ordnance Map sufficient for the purpose of inviting tenders, and they recommended that the Clerk should enter into negotiations with the owner of Martyr's Farm with a view of ascertaining whether he is prepared to deal with the Sanitary Authority without the exercise of compulsory powers, and if he is not so prepared, then to give the necessary notices to take the whole of the land included in the Provisional order. The owner stated that he was willing to treat with the Authority. On Dec. 19th, the Committee further reported that land abutting on Langley

Lane might probably be acquired cheaply, and Mr. Kelsey was requested to survey the same.

The death-rate at Ifield, taking the average of the past eight years, has been 11·8 per 1000, and the rate at Crawley is 11·1 on the past three years.

Pollution of the River Arun.—Since the sewage from the Horsham Farm now passes into the river Arun at a point below Floodgates, there has been no pollution of the stream which flows through Mr. Stanford's mill, and no further complaints were made. Legal proceedings have ceased and the Horsham Local Board have compensated Mr. Stanford for the damage &c., done to his property.

St. Julian's Priory.—Various complaints were made during the year of a nuisance arising from sewage from this orphanage passing into a ditch, or small stream, which eventually joins the river Adur. After visiting the spot on several occasions I could find no sufficient evidence of any nuisance injurious to health. The sewage is received into tanks and after passing through charcoal, or after treatment with lime, some of the clear effluent passes into the ditch at times, but most of the sewage is conveyed in a barrel to a farm and garden belonging to the orphanage.

RAINFALL.—The amount of rainfall during the year was taken daily by T. W. Cowan, Esq., of Compton's Lea, Horsham, who has kindly allowed me to use his tables.

Month.	Total depth in inches.		No. of rainy days,		Rainfall in 1882.	
January	..	3·02	..	22	..	1·26
February	..	4·24	..	19	..	1·07
March	..	0·56	..	9	..	1·54
April	..	1·63	..	10	..	3·05
May	..	2·07	..	11	..	1·44
June	..	2·40	..	11	..	2·37
July	..	2·69	..	16	..	3·27
August	..	0·73	..	10	..	1·52
September	..	4·69	..	17	..	3·32
October	..	2·77	..	15	..	6·89
November	..	4·98	..	21	..	2·89
December	..	1·06	..	17	..	2·68
<hr/>						
Total.....		30·84		178		31·30

The rain gauge is placed 4ft. above the ground and 253ft. above the sea level; diameter of funnel, 5 inches.

There were six deaths returned as "not certified" out of a total of 202:—female, seventy-one years, supposed cause, heart disease; male, twenty-seven years, epilepsy; male, one year, whooping-cough, bronchitis; male, eighty-five years, apoplexy, male, five days, premature birth; male, fifty-four years, disease of the heart.

In the South sub-district there was one death of an illegitimate child out of a total of 59 deaths :—male, six years, epilepsy, certified.

In the North sub-district there was one death of an illegitimate child out of a total of 99 deaths :—female infant, suffocated during birth, inquest held.

In the West sub-district out of a total of 44 deaths there was no death of a child born out of wedlock.

Inquests were held in nine cases :—male, eighty years, accidental fall from ladder ; male infant, accidentally suffocated at birth ; female infant, suffocated during birth ; male, seventy-three years, accidentally killed by a train ; female, four years, accidentally burnt to death ; male, twenty-six years, accidental fall ; male, unknown age, accidentally killed by a train ; male, forty years, found dead in the River Arun ; male, three years, accidentally scalded.

PROCEEDINGS BEFORE THE BENCH.—A lad at St. Julian's Orphanage in the parish of West Grinstead had a " Diphtheritic patch " on one tonsil on November 21st, 1883, and he was sent by Father Denis to the Horsham Workhouse, being driven there in a cart ; the case was considered by the Guardians and the boy was admitted to the infectious ward of the Infirmary. On the previous day when there was no certificate of the nature of his disorder, this lad had been brought to the Workhouse and the Master had refused to admit him without an order. The Rev. J. M. Denis was summoned by the Sanitary Authority before the Horsham Bench of Magistrates on November 24th, for exposing a lad while suffering from a dangerous infectious disorder.

The Magistrates did not consider that there had been any wilful exposure and the case was dismissed, each side paying its own costs. The expenses of the lad while in the Workhouse Infirmary were repaid to the Guardians by the Orphanage authorities, but it is most undesirable that infectious cases should be sent to a Workhouse when they are not paupers. At St. Julian's Priory, a building is now being erected, which, when completed, will be used as an Infirmary and ample accommodation will then be provided.

A few cases of overcrowding have been abated during the year.

There have been no cases in which it was necessary to condemn meat or any other article of food which had been exposed for sale.

There is no common lodging house in the district.

The bakehouses and slaughter houses are inspected at intervals and they have been kept in a cleanly state.

HORSHAM RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 8 years, 1876-83.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over
1876	243	49	20	12	13	56	93
1877	182	36	9	8	12	39	78
1878	204	39	17	9	6	56	77
1879	241	50	22	12	21	47	89
1880	217	40	25	17	12	40	83
1881	197	40	14	8	9	55	71
1882	198	41	15	14	12	46	70
1883	202	32	15	9	8	61	77
Total	1684	327	137	89	93	400	638
In 1000 Deaths.....	1000	194	81	53	55	238	379

TABLE 2.—Showing the Deaths and Death-rate in each of the 8 years 1876-83, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid.	Other.							
1876...	1	6	4	..	9	..	3	1	3	..	..	..	..	27	1·8
1877...	..	2	..	..	..	..	3	..	1	..	..	..	..	6	0·4
1878...	..	2	1	1	2	..	1	..	5	1	..	..	1	14	0·9
1879...	..	3	1	3	8	..	1	1	3	..	..	..	1	21	1·4
1880...	..	4	3	5	4	..	1	1	7	..	..	..	1	26	1·6
1881...	..	..	1	2	8	..	..	1	5	2	..	1	2	22	1·4
1882...	..	3	1	5	2	..	1	1	1	1	2	..	..	17	1·0
1883...	..	2	1	..	5	..	1	..	2	1	3	..	2	17	1·0
Total.	1	22	12	16	38	—	11	5	27	5	5	1	7	150	1·2

HORSHAM RURAL SANITARY DISTRICT

TABLE 3.—Showing the Deaths and Death-rate from all causes and the Population in the middle of the period.

PARISH.	Population in the middle of the period.	Mean annual death-rate per 1,000, all ages.	Deaths from all causes in			
			1876-80.	1881.	1882.	1883.
West. S.D. {						
North S.D. {						
Sth. S.D. {						
Horsham (part of)	710	14·8	52	14	11	77
West Grinstead ..	1450	13·4	94	18	19	255
Shipley	1120	14·2	80	16	17	144
Nuthurst	783	14·0	59	9	7	133
Horsham (part of)	2010	13·9	148	27	18	322
Lowei Beeding....	1300	12·8	85	12	17	200
Ifield	2000	11·8	113	24	29	233
Crawley (3½ years)	[460]	11·1	3	4	8	32
Rusper	555	12·3	35	6	7	77
Warnham	1050	12·3	76	13	9	144
Slinfold	780	15·5	58	10	13	166
Itchingfield	430	15·1	32	4	11	55
Rudgwick	1112	16·9	116	15	13	77
Billingshurst.....	1600	15·3	136	25	19	160
Whole District	14900	14·00	1087	197	198	2020

STRICT, 1876-83.

in various causes in each Parish in the eight years.

nine years.	Mean annual number of deaths.	Total deaths in nine years from			Mean annual death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease	Zymotic Disease.	Phthisis.	Lung Disease.
84	10.5	9	12	15	158	211	264
56	19.5	18	9	24	155	77	207
27	15.9	12	18	16	134	200	178
88	11.0	8	11	13	127	175	207
25	28.1	17	18	42	105	111	260
34	16.7	11	14	21	105	134	202
89	23.6	18	26	31	112	162	194
18	5.1	2	3	3	124	186	186
55	6.9	4	9	9	90	202	202
12	14.0	14	9	27	166	107	321
97	12.1	8	7	18	128	112	288
52	6.5	6	11	8	174	320	232
51	18.9	10	11	30	112	123	337
96	24.5	13	29	35	101	226	273
4	210.5	150	187	292	124	155	242

HORSHAM RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 8 years, 1876-83.

PARISH.	Population in 1883.	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Continued Fevers			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.
South Sub-district.	Horsham, part of	1	1	2	4	..	..	..	..	..	..	..	..	1	9
	West Grinstead	..	3	2	1	2	2	3	3	3	..	1	..	1	18
	Shipley .....	..	1	..	5	3	..	..	1	2	..	1	..	..	12
	Nuthurst .....	..	3	..	..	1	..	..	..	4	..	..	..	1	8
North Sub-district.	Horsham, part of	..	2	1	2	3	..	1	1	4	1	..	..	2	17
	Lower Beeding	..	..	..	..	6	..	2	..	4	..	1	..	1	11
	Ifield .....	..	3	1	2	4	..	..	..	3	2	1	..	..	18
	Crawley .....	..	1	..	..	1	..	..	..	..	..	..	..	..	2
West Sub-district.	Rusper .....	..	1	1	..	..	..	..	..	1	..	1	..	..	4
	Warnham .....	..	1	1	2	7	..	..	..	2	1	1	..	..	14
	Slinfold ..	..	..	1	..	2	2	1	1	2	..	1	..	..	8
	Itchingfield .....	..	..	3	..	2	2	..	..	..	..	..	..	..	6
West Sub-district.	Rudgwick .....	..	4	..	..	2	2	1	1	1	1	..	1	..	10
	Billingshurst ...	..	2	..	..	5	5	1	1	4	..	..	..	1	13
Whole District ...	15840	1	22	12	16	38	—	11	5	27	5	5	1	7	150

HORSHAM RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 8 years 1876--83.

LOCALITY.	Deaths during the 8 years 1876—83, from						Annual Death rate per 100,000 living from					
	Population in middle of period.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	
South Sub-dist.	4063	455	47	50	68	30	1400	144	153	209	92	
North Sub-dist.	6915	733	66	79	133	47	1298	116	140	235	83	
West Sub-dist.	3922	496	37	58	91	46	1570	117	185	290	146	
Whole District	14900	1684	150	187	292	123	1400	124	155	242	102	
In 1876	14306	243	27	27	42	17	1698	188	188	293	118	
In 1877	14445	182	6	23	26	17	1260	41	159	180	117	
In 1878	14588	204	14	21	38	16	1398	96	143	260	109	
In 1879	14732	241	21	30	49	17	1635	142	203	332	115	
In 1880	15350	217	26	19	47	14	1413	169	124	306	91	
In 1881	15510	197	22	22	30	13	1270	141	141	193	83	
In 1882	15670	198	17	21	28	12	1263	108	134	178	76	
In 1883	15840	202	17	24	32	17	1275	107	151	202	107	

TABLE A.—Showing the Deaths during the year 1883, in the Rural Districts, and also the Population of such Localities.

Names of Localities adopted for the pur- pose of these Statis- tics; public institu- tions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								
	Census 1881	Estimated to middle of 1883.		At all ages.	Under 1 year.	Under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11	12	
SOUTH SUB-DISTRICT	4083	4120	101	52	7	3	4	3	14	21	Under 5. 5 upwds	
NORTH SUB-DISTRICT	7403	7750	249	85	16	7	3	3	25	31	Under 5. 5 upwds	
WEST SUB-DISTRICT	3940	3970	130	42	9	5	2	2	15	9	Under 5. 5 upwds	
WORKHOUSE.	—	—	—	36	—	—	—	1	10	25	Under 5. 5 upwds	
											Under 5. 5 upwds	
											Under 5. 5 upwds	
											Under 5. 5 upwds	
											Under 5. 5 upwds	
											Under 5. 5 upwds	
											Under 5. 5 upwds	
											Under 5. 5 upwds	
TOTALS	15426	15840	480	215	32	15	9	9	64	86	Under 5. 5 upwds	
Deaths occurring outside the district among persons belonging thereto											Under 5. 5 upwds	
Deaths occuring within the district among persons not belonging thereto				13	—	—	—	1	3	9	Under 5. 5 upwds	

TABLE B.—Showing the New Cases of Sickness coming to the knowledge of District of HORSHAM, classified

NAMES OF LOCALITIES. 1	NEW CASES OF SICKNESS, IN PERSONS BELONGING							
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough.	Con
	12	13	14	15	16	17	18	19
South Sub-District.	Under 5		1				1	
	5 upwds.			1	2			
North Sub-District.	Under 5		1	1			3	
	5 upwds.		3	4				
West Sub-District.	Under 5		2				1	
	5 upwds.		5	2	1			
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
Totals.....	Under 5		4	1			5	
	5 upwds		8	7	3			

SOURCES OF INFORMATION :—In Workhouse and Workhouse

Medical Officer of Health, during the year 1883, in the Rural Sanitary
rding to Localities and Diseases.

THE DISTRICT DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS AGE.

RS.		Other Diseases, such as Chicken Pox, or Pneu- monia, which the Medi- cal Officer of Health thinks well to record.							
Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever.	Erysipelas	Pyæmia	Puerperal Fever	Ague		
21	22	23	24	25	26	27	28		
1	2								
2	4			1					
2	2								
1	9		1	2					
	4								
	12			1					
	7								
3	25		1	4					

Summary, 78. Among Out-door Paupers, 612.

RURAL SANITARY DISTRICT OF PETWORTH.

POPULATION, 10,138 IN 1871; 9595 IN 1881. AREA IN ACRES, 45,701. NO. OF HOUSES, 2008 IN 1871; 1994 IN 1881.

DURING the year 1883 the births of 262 children and the deaths of 171 persons were registered; of the births 138 were male and 124 were female; of the deaths 96 were male and 75 were female.

There were eight deaths in Petworth Workhouse and three deaths in Kirdford Workhouse, but there were none either in Wisborough Green Workhouse or in the Petworth Cottage Hospital. These eleven deaths have been distributed among the several parishes whence each inmate came, viz., Northchapel 1, Kirdford 2, Petworth 6, Fittleworth 1 and Stopham 1, in all 11.

The deaths in each parish were thus distributed:—Wisborough Green 22, Northchapel 18, Kirdford 28, Petworth 58, Egdean 1, Fittleworth 14, Stopham 4, Coates 2, Burton 1, Duncton 5, Barlavington 2, Sutton 5, Bignor 3, Bury 8, in all 171.

The births and deaths in the whole of the district during the past nine years have been as follows:—

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1875 ..	323	32·5	178	17·9
1876 ..	264	26·7	157	15·8
1877 ..	296	30·1	148	15·0
1878 ..	280	28·6	184	18·8
1879 ..	298	30·8	160	16·5
1880 ..	267	27·8	136	14·1
1881 ..	292	30·6	158	16·5
1882 ..	275	28·9	125	13·1
1883 ..	262	27·5	171	18·0

POPULATION.—The population in this district contains more males than females according to the recent census returns. The distribution of the population at various groups of ages is here shown:—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwards.	Total.
Male ..	127	481	1218	784	1682	566	4858
Female..	113	534	1163	697	1699	531	4737

The excess of males is chiefly between ten and twenty years of age, while at other periods of life the numbers are very nearly equal.

There is a considerable excess of aged people in this district, and the population in many parishes is either stationary or declining.

In Fittleworth, Stopham, Burton, Duncton, Barlavington and Bignor there was a very slight increase, but in all the other parishes there was a marked decrease between 1871 and 1881.

During the past five years there have been 1394 births and 750 deaths.

The natural increase of population during this period by excess of births over deaths was, therefore, 644. The estimated *decrease* of the population during the same period is 157, so that there must have been a considerable migration into other districts.

Part of this diminution is due to the closing of Petworth Gaol, but since the people are chiefly engaged in agriculture, the chief loss is due to persons seeking employment elsewhere than upon farms.

The young and the active leave so that the birth-rate here is low and the aged people are in excess, and hence there are more people in receipt of parochial relief, as they come on the parish when from old age they are unable to work.

In each quarter the births and deaths were as follows:—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	46	27	73	23	21	44
2nd	„	31	25	56	30	23	53
3rd	„	33	26	59	17	17	34
4th	„	28	46	74	26	14	40
Total		138	124	262	96	75	171

A comparative statement of the births in each quarter for a term of five years shows that the birth-rate is highest in the first and last quarters of the year:—

		1879—81.	1882.	1883.	Total.	Mean.
1st Quarter	..	226	73	73	372	74
2nd	„	235	53	56	344	69
3rd	„	200	69	59	328	66
4th	„	196	80	74	350	70
Total		857	275	262	1394	279

The following table shows the birth-rate in different localities during the past eight years and it shows that the rates are very nearly uniform throughout the district.

The birth-rate is much lower here than in the districts of Steyning and Horsham where there is an increasing population.

	Mean of 1876-80.	1881.	1882.	1883.	Mean of 1876-83.
North Sub-District ..	29·1	30·3	28·7	26·6	29·0
Petworth Parish ..	29·0	30·3	28·5	27·4	28·9
Rest of S. Sub-Dis. ..	27·9	31·3	29·7	29·3	28·7
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Total ..	28·8	30·6	28·9	27·5	28·9

The *birth-rate* in 1883 throughout England and Wales was equal to 33·2 per 1000 persons estimated to be living in the middle of the year; it showed according to the Registrar-General a further slight decline from the steadily decreasing rates in the six preceding years, and it was lower than that recorded in any year since 1849, when it was so low as 32·9.

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Total.
1st Quarter ..	12	5	2	1	6	18	44
2nd „ ..	5	1	3	3	11	30	53
3rd „ ..	5	2	—	2	8	17	34
4th „ ..	3	5	1	—	16	15	40
<hr/>							
Total ..	25	13	6	6	41	80	171

An examination of Table 1 will show that, owing chiefly to the age-distribution of the population, less than one-sixth die under one year of age, while considerably more than two-fifths are sixty years of age and upwards.

A comparative statement of the deaths in each quarter during the past nine years shows that the deaths are most numerous in the first and last quarters of the year :—

	1875—80.	1881.	1882.	1883.	Total.	Mean.
1st Quarter ..	276	43	33	44	396	44
2nd „ ..	235	42	30	53	360	40
3rd „ ..	191	32	27	34	284	31
4th „ ..	261	41	35	40	377	42
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Total ..	963	158	125	171	1417	157

The *infant mortality* is here given as measured by the number

of deaths under one year of age to the total number of births in the year :—

	Births.	Dths. under 1 year.	Ratio to 1000 Births
North Sub-District.. ..	110	12	109
Petworth Parish	80	4	50
Rest of S. Sub-Dis.	72	9	125
	—	—	—
Total	262	25	95

The rate of infant mortality throughout England and Wales was equal to 137 per 1000, against 130 and 141 in the two preceding years.

The following table shows the rate of infant mortality in different localities during the past eight years; in each locality the rate is low :—

	Mean of 1876-81.	1882.	1883.	Mean of 1876-83.
North Sub-District ..	82	25	109	78
Petworth Parish ..	97	120	50	94
Rest of S. Sub-Dis. ..	82	54	125	84
	—	—	—	—
Total	87	61	95	85

The 25 *infantile* deaths in 1883 included one from whooping-cough, four from convulsions, four from lung diseases, eight from debility, three from premature birth, three from malformation and two from unknown causes.

The deaths from *zymotic*, or catching, disorders were nine in number, against 10, 14, 8, 17, 13, 12, 4 and 8 in the eight preceding years.

These nine deaths included one from scarlatina, one from whooping-cough, two from enteric fever, two from diarrhœa, one from rheumatic fever, and two from erysipelas.

The rate of mortality from these diseases was 0·9 per 1000 persons living, against a rate of 1·0, 1·4, 0·8, 1·7, 1·3, 1·2, 0·4, and 0·8 in the eight preceding years. In the past nine years there have been altogether 95 deaths in this class, or a mean annual rate of 1·0 per 1000.

Measles and scarlet fever were very prevalent, but there was only one death from scarlet fever, and there was nothing to call for any special remark. There were two deaths registered from enteric fever, but neither of these cases arose from sanitary defects and in neither case was there any spread of the disease. The two deaths from diarrhœa occurred in the same house and the illness of these children seemed due to poverty and bad feeding.

The following summary shows the improvement that has taken

place in this district in recent years, and it may be looked upon as a continuation of a similar table to be found in the sixth annual report. Similar facts for different parts of the district will be found in the appended tables which are so constructed as to make a comparison over a term of years and easy matter.

Per 100,000 Persons living.	1851-60.	1861-70.	1879-83.
All ages, both sexes.			
General Death-rate ..	1855	1933	1568
Zymotic „ ..	271	319	95
Phthisis „ ..	283	226	144
Lung Disease „ ..	211 } 494	230 } 456	288 } 432
15 to 55 years.			
Phthisis Death-rate ..	{ 462 mean 509 female	{ 397 mean 490 female	{ 257 mean 206 female
Lung Disease „ ..	{ 50 mean 44 female	{ 86 mean 90 female	{ 155 mean 125 female
Under 1 year			
Under 1 year	?	11885	9500
Under 5 years	3937	4081	2677

A Local Government Board Inquiry was held by Arnold Taylor, Esq., at Petworth Town Hall, on January 31st, 1883, because the Sanitary Authority applied to the Board for sanction to borrow £800 for works of water-supply for the Special Drainage District of Petworth. Very little interest seemed to be felt in the matter and only one person was present as representing the ratepayers.

SEWERAGE AND DRAINAGE.—Towards the end of the year the Parochial Committee prepared a scheme by which the houses should be connected with the new main system of drainage. As this scheme did not appear to me to provide for all the requirements of the town I sent the following report to the Sanitary Authority:—

December 10th, 1883.

* * * * *

“I am informed that at the meeting of your Authority, the question of the connection of the house drains with the new sewerage work at Petworth, would be taken into consideration. I have

therefore thought it best to send you a written statement of my views on the subject as the matter is one of much importance. To properly and effectually drain a house on the water-carriage system all refuse matter should be removed as quickly as possible and it should be carried by the main sewer to the outfall by means of water. If the sewage be thus removed in a few hours, or before decomposition has set in, and if the main sewer be well ventilated, no harm will arise; but the detailed account of the work required to be done, which has been furnished me, does not seem to provide for the above simple conditions.

Thus it appears from this account that there are 97 houses which can drain into the Northern Sewer and yet it is only proposed to drain 37 houses by means of 18 connections, leaving 60 houses in the same condition as before. In this scheme it is not even provided that the boys' school in North-street shall be drained although it is now in a very unsatisfactory condition.

In those cases where a house has been effectually drained into an old sewer, it will be a simple matter to make a new connection. In many cases the house drain passes first into a cesspool and then the overflow drains into an old sewer; here the house could not be effectually drained unless the cesspools were emptied and filled up, and the house drain were brought down to the new sewer at a proper gradient. The specifications only provide that the contractor shall, where required, empty and fill up with earth all cesspools *on the line* of the works, but in the case just mentioned he would only connect with the overflow pipe, leaving the cesspool a greater nuisance than before, for every time the drain was used, some of the decomposed contents would pass into the main sewer and cause a nuisance. It has been shown over and over again that when a main sewerage system has been carried out and when a public water supply has been provided, all sewage should be carried away at once to a distant point. If, however, any sewage flows first into a cesspool and then into a sewer not only is the flushing power to a great extent lost, but decomposed, and not fresh, sewage flows in, and it is this decomposed sewage which gives off the foul gases and which does harm.

It should, therefore, be made a rule that no house shall drain into a sewer unless every cesspool is disconnected, emptied and filled up. Care should be taken that the new drain should not pass over the surface of the filled up cesspool, because the earth used for filling in is sure to sink, however well it is rammed down, and then the drain pipes will sink too, and become blocked up.

No closet should be allowed to connect with a sewer unless it be provided with a service cistern which will allow of a flow of two gallons at least at each discharge. No house drain can be kept in order unless it be properly flushed, and the above quantity is the minimum that should suffice. If you trust to

hand-flushing, or to a pail of water being thrown down at intervals, the drain often becomes blocked up from the neglect, or carelessness of the occupier.

In cases where there is plenty of garden ground it would be better to have earth closets, or that modified kind of earth-closet erected at many of Lord Leconfield's cottages, but they should not be allowed unless there is plenty of air-space.

Further, the scheme prepared by the Parochial Committee makes no due provision for dirty house water, slops, &c., and yet many nuisances are caused by not removing such liquid refuse.

At present, this dirty water is either thrown on the garden, or it accumulates in holes or it passes into a drain or cesspit.

In every case whether the closets join the sewer or not, some provision must be made for carrying off this water, and then it would be far easier to adopt the earth system as all the liquid refuse would be carried away elsewhere. It does not follow that each cottage would require a separate drain for this purpose. An open channel or gutter might run at the back of four or six cottages to a gully trap whence one drain would carry all such refuse to the sewer.

From the above remarks it is clear that the question of house connection is not one merely of joining an old drain to a new one, but each house should be dealt with on some definite plan.

In some places earth-closets, in others water-closets must be provided; in all houses within 100 feet of the sewers, liquid refuse must be carried away; in no cases should any cesspool overflow into or communicate with a drain.

I have always been of opinion that the first and chief want in Petworth was the water-supply and nine years have now elapsed since this want was pointed out. From circumstances over which your Authority had little or no control, it was decided that a main system of sewerage should be carried out before a water-supply could be provided. The result has been that the sewerage system has been completed at a great expense and yet up to the present time it cannot be used. Your Authority has now done all it was called upon to do.

The water-works have been made, the mains are laid, street hydrants are erected and in many cases service pipes are in the houses, but yet no water can be obtained by the inhabitants.

I would strongly advise your Authority to refuse to obtain any further loan or to carry out any further works until good water is provided for every inhabitant in the Special Drainage District of Petworth. There is no evidence whatever that if the scheme of the Parochial Committee be carried out, water will be provided for another six months. Yet the whole success of the scheme depends upon the sewers being well flushed with water. Unless the water is first supplied it is useless to make the

house connections, as more harm than good will arise.

There is yet another evil which I would point out. Petworth is placed upon a hill and although on that account it is an easy place to drain, yet it is all the more easy for foul gases to pass upwards and to cause a nuisance at the ventilators on the street level. I have known many cases of illness to arise from this cause. The only remedy is to provide as many ventilating shafts as possible which should be carried direct from the sewer to some high point above the eaves of a dwelling. The foul gases will then escape into the atmosphere, and, becoming diluted, they will do no harm.

In conclusion I would urge that the first and most imperative need is a good supply of water without which all other work done is of secondary importance. Then each owner or occupier should be required by a written notice from your Authority to connect with the new sewer under sect. 23, of the Public Health Act, 1875.

There may be a few cases under sect. 24, where the houses have now "effectual drainage" and where it would rest with your Authority to make the connections but such houses must be very few in number."

WATER SUPPLY.—In my last report a full description was given of the new water-works which were nearly completed at the end of 1882. At the close of 1883 the new water was supplied to the town and for the future the inhabitants will have a supply ample in quantity and excellent in quality.

RAINFALL.—The amount of rainfall during the year was taken daily by the Rev. C. Holland, Petworth Rectory, who has kindly allowed me to use his tables.

Month.	Total depth in inches.		No. of rainy days,		Rainfall in 1882.	
January	..	3.93	..	18	..	2.10
February	..	6.18	..	15	..	2.46
March	..	1.32	..	8	..	0.89
April	..	1.50	..	8	..	3.81
May	..	2.29	..	10	..	1.51
June	..	2.88	..	11	..	2.95
July	..	2.68	..	15	..	3.36
August	..	1.36	..	6	..	1.97
September	..	4.15	..	15	..	2.72
October	..	2.92	..	10	..	7.12
November	..	5.50	..	17	..	3.58
December	..	1.09	..	9	..	3.22
<hr/>						
Total.....		35.80		142		35.69

Inquests were held in eight cases:—Female, $2\frac{3}{4}$ years, accidentally burnt; female, $1\frac{3}{4}$ year, accidentally scalded; male,

37 years, run over by a waggon; male, 27 years, suicide by hanging while insane; female, 1½ year, accidentally drowned; female, 37 years, natural causes, heart disease; male, 33 years, accidentally drowned; female, 78 years, suicide by drowning whilst insane.

There were five deaths returned as “not certified” in the North Sub-District out of a total of 68 deaths:—Male, 46 years, probably disease of the heart; male 5 weeks, unknown; female, 82 years, unknown; male, 37 years, probably phthisis; male, 3 months, unknown.

There were two deaths returned as “not certified” in the South Sub-District out of a total of 103 deaths:—Female, 7 months, convulsions; female, 79 years, cerebral hæmorrhage.

There were three deaths of illegitimate children out of a total of 262 births:—Female, 4 years, convulsions, certified; male, 6 months, bronchitis, certified; female, 23 days, debility from birth, certified.

There were 610 new cases of pauper sickness during the year against 1,140, 866, 812, 826, 702, 700, 522 and 537 in the eight preceding years. In proportion to the population, the amount of pauper sickness is much larger than in any other Union in the combined district. The medical returns are made up with much greater care than in some of the other districts and this may account for part of the increase. There is also in this Union a larger proportion of paupers, because there is an excess of aged people among the agricultural population and so many old persons come on the rates.

This large amount of pauper sickness does not show, therefore, that this district is more unhealthy than others; during the last two years it has been in a very healthy condition and diphtheria, especially, has been much less frequent than usual.

BY-LAWS.—The Parochial Committee were engaged during the year in drawing up some by-laws which might come into operation when the house-connections were made with the new main sewer.

The By-laws were taken from the Model By-laws issued some years ago by the Local Government Board, and those were selected which related to the drainage of buildings, as to the giving of notices and deposit of plans and sections by persons intending to construct buildings; as to inspection by the Sanitary Authority and as to the power of such authority to remove, alter or pull down any work begun or done in contravention of the by-laws; and as to new drains and connections with the new sewers.

I also advised the Sanitary Authority to draw up regulations in connection with the water supply. The Parochial Committee drew up a series of regulations which were for the most part taken from similar regulations which have been found to work

well in other towns. These rules deal with the communication pipes, with the consumer's pipes in direct communication with the mains belonging to the Authority, with the proper fittings and stopcocks, with the protection of the pipes from frost, with the disconnection of all closets, baths, &c., from the main otherwise than by a cistern or service box so as to prevent any contamination of the water.

Neither the By-Laws nor the Water Regulations have yet come into operation.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated

No cases occurred in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

There is one common lodging house in the district and this has been kept in proper condition.

No proceedings were taken before the magistrates during the year.

PETWORTH RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 9 years, 1875-83.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over
1875	178	26	17	11	12	33	79
1876	157	26	19	2	7	41	62
1877	148	19	5	11	7	40	66
1878	184	31	11	11	11	37	83
1879	160	28	13	13	11	27	68
1880	136	16	10	9	8	27	66
1881	158	28	10	9	9	34	68
1882	125	17	8	6	8	31	55
1883	171	25	13	6	6	41	80
Total	1417	216	106	78	79	311	627
In 1000 Deaths.....	1000	152	75	55	56	219	443

TABLE 2.—Showing the Deaths and Death-rate in each of the 9 years 1875-83, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Total.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid.	Other.							
1875...	1	5	2	..	..	..	1	..	1	..	..	10	1.0
1876...	3	4	12	..	..	..	1	1	..	..	3	14	1.4
1877...	1	1	..	5	..	..	..	..	1	..	..	..	..	8	0.8
1878...	6	3	..	3	..	3	..	..	1	1	17	1.7
1879...	8	1	..	2	..	1	1	..	..	..	13	1.3
1880...	..	3	3	2	2	..	1	..	..	1	..	..	..	12	1.2
1881...	3	..	..	1	..	..	..	..	..	..	4	0.4
1882...	1	3	..	..	..	3	..	1	..	..	8	0.8
1883...	1	..	1	..	2	..	2	1	2	..	..	9	0.9
Total.	1	4	8	34	14	—	9	—	12	4	4	1	4	95	1.0

PETWORTH RURAL SANITARY

TABLE 3.—Showing the Deaths and Death-rate from all causes and

PARISH.		Population in the middle of the period.	Mean annual death-rate per 1,000, all ages.	Deaths from all causes in			
				1875-80.	1881.	1882.	1883.
South Sub-District. N.S.D.	{ Wisborough Green..	1681	15·7	156	39	21	22
	{ Northchapel	795	17·2	75	17	13	18
	{ Kirdford	1720	15·8	168	29	20	28
	{ Petworth	2995	17·2	331	41	36	58
	{ Egdean	75	16·3	5	4	1	1
	{ Fittleworth	695	18·7	78	13	12	14
	{ Stopham	151	11·7	11	1	—	4
	{ Coates	65	18·8	9	—	—	2
	{ Burton	70	11·0	5	1	—	1
	{ Duncton.....	265	10·4	17	3	—	5
	{ Barlavington.....	170	7·2	6	1	2	2
	{ Sutton	320	15·2	31	2	6	5
	{ Bignor	135	18·9	15	1	4	3
	{ Bury	520	17·0	56	6	10	8
Whole District		9657	16·3	963	158	125	171

ISTRICT, 1875-83.

om various causes in each Parish in the nine years.

Total deaths in the nine years.	Mean annual num- ber of deaths.	Total deaths in nine years from			Mean annual death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease	Zymotic Disease.	Phthisis.	Lung Disease.
238	26.4	9	20	56	59	132	370
123	13.6	9	15	19	125	209	265
245	27.2	12	18	48	77	116	310
466	51.8	44	59	73	163	218	270
11	1.2	—	—	—	—	—	—
117	13.0	6	11	18	96	175	287
16	1.8	—	—	2	—	—	147
11	1.2	4	1	1	683	171	171
7	0.8	—	1	—	—	158	—
25	2.8	—	—	5	—	—	209
11	1.2	1	—	3	65	—	196
44	4.9	1	5	9	35	173	312
23	2.5	—	1	5	—	85	427
80	8.9	9	4	8	192	85	170
117	157.4	95	135	247	109	155	284

PETWORTH RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 9 years, 1875-83.

PARISH.	Population in 1883.	Small Pox.	Measles.	Scarlatina:	Diphtheria.	Whooping Cough.	Continued Fevers			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.
North Sub-district	Wisboro' Green..	1645	..	6	1	1	..	1	..	1	..	..	..	..	9
	Northchapel ...	790	..	7	2	2	..	..	..	..	..	..	..	..	9
	Kirdford	1700	..	8	2	2	..	6	..	6	1	4	..	2	12
	Petworth	2910	4	7	7	7	..	..	..	..	..	..	..	2	44
South Sub-district.	Egdean	75	..	..	..	..	..	..	..	2	2	..	1	..	6
	Fittleworth ..	690	..	1	..	..	..	..	..	2	..	..	..	..	4
	Stopham	156	..	..	..	..	..	2	..	..	1	..	..	..	4
	Coates	58	..	..	..	..	..	..	..	..	..	..	..	..	1
	Burton	73	..	1	..	..	..	..	..	..	..	..	..	..	1
	Duncton	268	..	..	..	..	..	..	..	..	..	..	..	..	1
	Barlavington ..	180	..	..	..	..	..	..	..	1	..	..	..	..	1
	Sutton	310	..	..	..	..	..	..	..	1	..	..	..	..	1
	Bignor	130	..	..	..	..	..	..	..	..	..	..	..	..	9
	Bury	515	..	1	5	2	..	..	..	1	..	..	..	..	9
Whole District ...	9500	1	4	8	34	14	—	9	—	12	4	4	1	4	95

PETWORTH RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 9 years 1875—83.

LOCALITY.	Deaths during the 9 years 1875—83, from					Annual Death rate per 100,000 living from					
	Population in middle of period.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
North Sub-dist.	4196	606	30	53	123	44	1604	79	140	325	116
Petworth Parish	2995	466	44	59	73	33	1728	163	218	270	122
Rest of South Sub-dist.	2466	345	21	23	51	46	1554	94	103	229	207
Whole District	9657	1417	95	135	247	123	1630	109	155	284	141
In 1875	9936	178	10	19	28	23	1791	100	191	281	231
In 1876	9885	157	14	11	27	12	1588	141	111	273	121
In 1877	9833	148	8	19	20	13	1505	81	193	203	132
In 1878	9780	184	17	17	34	8	1881	173	173	346	82
In 1879	9657	160	13	17	35	15	1656	134	175	362	155
In 1880	9603	136	12	12	22	6	1416	124	124	229	62
In 1881	9550	158	4	13	38	16	1654	41	136	397	167
In 1882	9500	125	8	12	17	12	1315	84	126	179	126
In 1883	9500	171	9	15	26	18	1800	94	158	273	189

TABLE A.—Showing the Deaths during the year 1883, in the Rural District
also the Population of such Localities

Names of Localities adopted for the pur- pose of these Statis- tics; public institu- tions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								Small Pox.
	Census 1881	Estimated to middle of 1883.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11	12	13
NORTH SUB-DISTRICT	4160	4135	110	65	12	5	2	3	16	27	Under 5. 5 upwds	.....
PETWORTH PARISH.	2942	2910	80	52	3	6	3	1	13	26	Under 5. 5 upwds	.....
REST OF SOUTH SUB-DISTRICT.	2493	2455	72	43	9	2	1	1	8	22	Under 5. 5 upwds	.....
PETWORTH WORKHSE.	—	—	—	8	1	—	—	1	4	2	Under 5. 5 upwds	.....
KIRDFORD WORKHSE.	—	—	—	3	—	—	—	—	—	3	Under 5. 5 upwds	.....
WISBOROUGH GREEN WORKHOUSE.											Under 5. 5 upwds	.....
PETWORTH COTTAGE HOSPITAL.											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
TOTALS	9595	9500	262	171	25	13	6	6	41	80	Under 5. 5 upwds	.....
Deaths occurring outside the district among persons belonging thereto .. .											Under 5. 5 upwds	—
Deaths occurring within the district among persons not belonging thereto .. .											Under 5. 5 upwds	—

TABLE B.—Showing the New Cases of Sickness coming to the knowledge
District of PETWORTH, classified

NAMES OF LOCALITIES. 1	NEW CASES OF SICKNESS, IN PERSONS BELONGING TO							
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough. 18	Cont. Typhus. 19
North Sub-District.	Under 5 5 upwds.						4 2	
Petworth Parish.	Under 5 5 upwds.			3 4			2	
Rest of South Sub-District.	Under 5 5 upwds.						4 1	
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
Totals.....	Under 5 5 upwds.			3 17			10 3	

SOURCES OF INFORMATION :--In Workhouse and Workhouse

Medical Officer of Health, during the year 1883, in the Rural Sanitary
According to Localities and Diseases.

TO THE DISTRICT DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS
OF AGE.

VERS.									Other Diseases, such as Chicken Pox, or Pneu- monia, which the Medi- cal Officer of Health thinks well to record.	
Typhoid	Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever.	Erysipelas	Pyæmia	Puerperal Fever	Ague		
21	22	23	24	25	26	27	28			
	2									
	15			2						
	1									
1	4									
	9			1						
1	6									
	25			3						

Infirmary, 21. Among Out-door Paupers, 589.

THAKEHAM RURAL SANITARY DISTRICT.

POPULATION, 8335 IN 1871; 8285 IN 1881. AREA IN ACRES,
40,636. NO. OF HOUSES, 1705 IN 1871; 1652 IN 1881.

DURING the year 1883 the births of 232 children and the deaths of 121 persons were registered; of the births 121 were male and 111 were female; of the deaths 62 were male and 59 were female.

There were during the year ten deaths in the Thakeham Workhouse and these have been distributed among the several parishes whence each inmate came, viz., North Stoke 1, Amberley 1, Wiggonholt 1, Pulborough 1, Storrington 3, Thakeham 1, Ashington 1, and Findon 1, in all 10.

The deaths in each parish were thus distributed:—North Stoke 2, Amberley 5, Rackham 5, Greatham 0, Hardham 1, Cold Waltham 4, Wiggonholt 1, Pulborough 29, West Chiltington 7, Parham 1, Storrington 30, Sullington 2, Thakeham 6, Warminghurst 0, Ashington 5, Wiston 3, Washington 12, and Findon 8, in all 121.

The births and deaths in the whole of the district during the past nine years have been as follows:

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1875 ..	260	31·0	169	20·1
1876 ..	272	32·5	128	15·3
1877 ..	284	34·0	107	12·8
1878 ..	257	30·8	141	16·9
1879 ..	275	33·0	127	15·2
1880 ..	269	32·4	148	17·8
1881 ..	231	27·8	114	13·7
1882 ..	251	30·3	103	12·4
1883 ..	232	28·0	121	14·6

POPULATION.—The recent census returns show that the population is slightly declining. In North Stoke, Amberley, Parham, Storrington, Wiston and Findon there is a slight increase, but in all the other parishes there is a decrease. There are more males than females and the persons now living are in excess of the numbers given in the returns of the census in 1861.

	1861.	1871.	1881.
Male	4121	4313	4247
Female	3915	4109	4038
Total	8036	8422	8285

The distribution of the population at various groups of ages is here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwards.	Total.
Male ..	138	444	1015	753	1466	431	4247
Female..	100	458	1007	607	1462	404	4038

During the past five years there have been 1258 births and 613 deaths.

The natural increase of population during this period by excess of births over deaths was, therefore, 645. The estimated *decrease* of the population during the same period amounts to 50, so that there must have been a considerable migration of persons into other districts.

In each quarter the births and deaths were as follows :

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	37	24	61	22	12	34
2nd	„	28	33	61	9	21	30
3rd	„	23	26	49	15	10	25
4th	„	33	28	61	16	16	32
Total ..		121	111	232	62	59	121

The births appear to be most numerous in the first quarter of the year :—

	1879—81.	1882.	1883.	Total.	Mean.
1st Quarter ..	209	77	61	347	69
2nd „ ..	200	51	61	312	62
3rd „ ..	179	63	49	291	58
4th „ ..	187	60	61	308	62
Total ..	775	251	232	1258	251

The following table gives the birth-rate in different localities for a term of eight years; in consequence of there being an excess of aged people, the birth-rate is low; in Storrington the rate is affected by the existence of a large school there.

	Mean of 1876-80.	1881.	1882.	1883.	Mean of 1876-83.
Pulborough Parish ..	33·4	30·4	33·2	33·8	33·0
Rest Pulboro' Sub-Dis	31·2	26·3	27·3	28·3	29·7
Storrington Parish ..	27·5	30·2	21·8	23·2	26·6
Rest Washington S.D.	35·1	26·3	31·1	26·5	32·4
Total ..	32·5	27·8	30·3	28·0	31·1

The *birth-rate* in 1883 throughout England and Wales was equal to 33·2 per 1000 persons estimated to be living in the middle of the year; it showed according to the Registrar-

General a further slight decline from the steadily decreasing rates in the six preceding years, and it was lower than that recorded in any year since 1849, when it was so low as 32·9.

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Total.
1st Quarter ..	6	3	—	2	8	15	34
2nd „ ..	6	2	1	3	7	11	30
3rd „ ..	2	3	1	—	8	11	25
4th „ ..	5	3	1	2	9	12	32
	—	—	—	—	—	—	—
Total ..	19	11	3	7	32	49	121

On examining Table 1, it will be found that about one-sixth die under one year of age, while more than two-fifths die aged sixty years and upwards.

A comparative statement of the deaths in each quarter during the past nine years shows that the deaths are most numerous in the first quarter, and least in the third quarter of the year :—

	1875—80.	1881.	1882.	1883.	Total.	Mean.
1st Quarter ..	249	33	26	34	342	38
2nd „ ..	216	28	26	30	300	33
3rd „ ..	169	18	25	25	237	26
4th „ ..	186	35	26	32	279	31
	—	—	—	—	—	—
Total ..	820	114	103	121	1158	128

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Dths. under 1 year.	Ratio to 1000 Births
Pulborough Parish	61	6	98
Rest of Pulborough Sub-Dis. ..	59	5	85
Storrington Parish	32	6	187
Rest of Washington Sub-Dis. ..	80	2	25
	—	—	—
Total	232	19	82

The rate of infant mortality throughout England and Wales was equal to 137 per 1000, against 130 and 141 in the two preceding years.

The following table shows the rate of infant mortality in different localities during the past eight years; with one

exception, where the numbers are small, the rate is very low :—

	Mean of 1876-81.	1882.	1883.	Mean of 1876-83.
Pulborough Parish ..	80	33	98	76
Rest Pulborough Sub-Dis.	122	70	85	111
Storrington Parish ..	57	—	187	66
Rest of Washington Sub-Dis.	76	32	25	64
	—	—	—	—
Total	85	35	82	79

The 19 *infantile* deaths in 1883 included four from convulsions, one from brain disease, three from lung diseases, six from debility, two from premature birth, one from teething, one from malformation, and one from unknown causes.

The deaths from *zymotic* or catching disorders were seven in number against 23, 20, 8, 9, 9, 29, 6, and 6 in the eight preceding years.

These seven deaths included one from scarlatina, two from diphtheria, two from enteric fever, and two from diarrhœa.

The rate of mortality from these diseases was 0·8 per 1000 persons living, against a rate of 2·7, 2·3, 0·9, 1·0, 1·0, 3·4, 0·7, and 0·7 in the eight preceding years.

During the past nine years there have been 117 deaths from this class of disorders, or a mean annual rate of 1·5 per 1000 persons living.

Scarlatina was very prevalent at Pulborough in October and November and there were probably as many as sixty cases; most of the children were but mildly affected, and there was only one death of a delicate child, 3 years of age. In many instances there was no medical attendance, and in a few cases there was no rash, the children suffering from a sore throat and feverishness, while in a few days other children in the same house had a regular attack of scarlet fever.

The houses and the school were well fumigated and cleansed and various minor nuisances were removed.

Diphtheria was the cause of two deaths at Findon.

Albert R. with his wife and five children lived in a well-built semi-detached cottage surrounded by a large garden. Ursula, 2½ years, was taken ill on July 7th and died on July 12th. Louisa, 9½ years, was taken ill on July 10th and died on July 17th.

The parents and three other children, 10, 6, and 14 years old respectively were not affected, nor was there any other case in the neighbourhood.

The water was obtained from a very deep well in the chalk and also from a large tank in which rain-water was collected. In this case the water was very good and others who drank it constantly were not affected. The closet was several yards away

from the house, and the only defect was a sink trap inside the house which communicated with a cesspit in the garden. There was no ventilation to this cesspit and the contents partly soaked away through the porous chalk. Complaints were made of the trap at times and it seems probable that foul air passing through the trap into the house may have been the cause of the illness. In many cases where foul air from a drain or sewer seems to have been the cause there has been no further spread of the disorder when the local mischief has been removed, while in other cases on wet heavy soils the disease sometimes spreads rapidly without there being any local defects.

In the above instance the trap and cesspit were at once removed. It cannot too often be insisted upon that all sink and bath pipes should deliver *outside* of the house in the open air on to a proper gully trap. In many cases a bell-trap is placed beneath a sink in a position difficult to get at, and if by any chance, the top of the trap is removed to let the water flow down faster, foul air must enter the house and it often does much harm.

Enteric fever caused two deaths. 1.—A young woman, 24 years of age, in delicate health and often suffering from diarrhoea was taken ill about the middle of September and died on October 4th. There were no drains in the house and the water-supply was good. There were no other cases in the house or neighbourhood, nor was there any spread of the disease. There was a foul ditch near into which a closet emptied; this was cleaned out and a fresh closet was put up.

2.—A girl, 14 years of age, living in an isolated cottage at Storrington, was taken ill early in October and died on October 25th. Her parents and five other children were all in good health. There was no case in the neighbourhood and there were no drains in the house, nor any sanitary defects. The water in the well had been bad for years and the well was never used. Good drinking water was obtained from a spring close to the house.

The inspection of this district was thoroughly carried out during the summer and autumn, and various nuisances were removed or abated.

There was, however, nothing special to call for notice.

Water Supply.—The whole of this district is supplied with water by means of springs wells, or, in a few cases of tanks. There are very few new houses erected from year to year as the population is slightly declining. When a new house is built, a certificate has to be obtained by the owner that there is a sufficient supply of water in accordance with the Public Health (Water) Act, of 1878. The wells, as a rule, are kept clean and free from pollution, so that the water supply is of good quality.

Drainage.—There is no place sufficiently large or populous to require a main system of drainage. The people are much scattered about and to each cottage there is generally a good-sized garden, so that with attention each occupier can deal with his own sewage. The chief work here is for a regular inspection to be carried on, so as to see that cleanliness is enforced, and various minor nuisances are constantly being abated.

The following summary shows the improvement that has taken place in this district in recent years, and it may be looked upon as a continuation of a similar table to be found in the sixth annual report. Similar facts for different parts of the district will be found in the appended tables which are so constructed as to make a comparison over a term of years and easy matter:

Per 100,000 Persons living.	1851-60.	1861-70.	1879-83.
All ages, both sexes.			
General Death-rate ..	1824	1649	1477
Zymotic ,, ..	402	292	137
Phthisis ,, ..	285	221	161
Lung Disease ,, ..	189 } 474	197 } 418	260 } 421
15 to 55 years.			
Phthisis Death-rate ..	{ 454 mean 560 female	{ 356 mean 379 female	{ 271 mean 324 female
Lung Disease ,, ..	{ 43 mean 45 female	{ 61 mean 45 female	{ 65 mean 73 female
Under 1 year	?	9763	7899
Under 5 years	3497	3317	2701

The Thakeham district may be well compared with the Petworth district, as in each case the population is chiefly engaged in agriculture, it is either stationary or declining and the people dwell in villages or in scattered hamlets and cottages.

The general death-rate is here rather lower, and the mortality amongst children is somewhat less, than in Petworth district.

There is, however, a great difference in the incidence of zymotic disease. In Petworth Union, diphtheria is far more common than it is here, while in this district, whooping-cough and diarrhoea are more prevalent. By taking areas of similar geological formation and comparing them with other areas differing much in composition, it will be seen that when a long

term of years be taken there is not much difference.

Mean annual death-rate per 100,000.

Area.	Soil.	General.	Zymotic.	Phthisis.	Lung Disease.
Petworth South Sub-district (Excluding Petworth Parish)	chiefly sandy;	1554	94	103	229
Thakeham Rural District ..		1547	156	148	277
Horsham Rural District ..	chiefly clay; cold and wet.	1400	124	155	242
Petworth North Sub-district		1604	79	140	325

Inquests were held in eight cases:—Male, 18 years, accidentally drowned; male, 82 years, accidentally drowned; male, 60 years, accidentally drowned; male, 52 years suicide by taking hydrate of chloral whilst insane; female, 72 years, natural causes, heart disease; male, 52 years, accidentally burnt and suffocated on a lime kiln; male, 65 years, suicide by hanging while insane; male, 47 years, accidental fall from horse.

There were seven deaths returned as “not certified” in the Pulborough sub-district out of a total of 54 deaths:—Male, 2 $\frac{3}{4}$ years, probably a convulsion fit; male, 5 days, convulsion fit; female, 1 day, insufficient vitality; female, 11 weeks, convulsion fit; male, 63 years, probably heart disease; male, 6 days, premature birth, debility; female, 12 days, premature birth, debility.

There were no deaths returned as “not certified” in the Washington sub-district out of a total of 67 deaths.

There were three deaths of illegitimate children out of a total of 232 births:—Female, 9 months, marasmus, certified; male, 1 year, acute meningitis, certified; female, 9 months, bronchitis, cerebral softening, certified.

PROCEEDINGS BEFORE THE BENCH.—On Nov. 19th an owner of some cottages at Storrington was summoned before the Steyning Bench of Magistrates for having some closets and drains in such a condition as to be injurious to health. The owner having agreed to carry out what alterations I considered necessary, the Bench adjourned the case for a month. In the mean time the owner had completed the needful works, and no further proceedings were taken.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

No cases occurred in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals, and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

There is no common lodging-house in the district.

THAKEHAM RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 9 years, 1875-83.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over
1875	169	27	28	4	7	32	71
1876	128	28	7	4	9	25	55
1877	107	16	10	4	5	27	45
1878	141	26	8	4	9	28	66
1879	127	20	7	4	6	23	67
1880	148	32	20	7	9	34	46
1881	114	14	10	6	6	32	46
1882	103	9	12	4	4	22	52
1883	121	19	11	3	7	32	49
Total	1158	191	113	40	62	255	497
In 1000 Deaths.....	1000	165	98	34	54	220	429

TABLE 2.—Showing the Deaths and Death-rate in each of the 9 years 1875-83, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid.	Other.							
1875...	1	2	10	..	..	..	9	1	..	..	..	23	2.7
1876...	..	1	4	..	9	1	..	..	4	..	1	..	..	20	2.3
1877...	6	..	1	..	..	..	..	..	..	1	..	8	0.9
1878...	..	2	..	..	2	..	1	..	2	..	2	..	..	9	1.0
1879...	1	3	..	1	..	2	1	..	1	..	9	1.0
1880...	..	1	1	..	24	..	..	..	3	..	..	..	..	29	3.4
1881...	2	3	..	..	..	..	1	..	..	..	..	6	0.7
1882...	..	1	1	2	..	..	1	..	..	1	..	..	..	6	0.7
1883...	1	2	..	..	2	..	2	..	..	..	..	7	0.8
Total.	—	5	16	10	49	1	5	—	23	3	3	2	—	117	1.5

THAKEHAM RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 9 years, 1875-83.

PARISH.	Population in 1883.	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Continued Fevers			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.
Pulborough Sub-district	103	..	..	..	..	2	..	..	1	..	..	..	..	..	3
	575	..	1	2	2	2	..	..	3	..	2	..	1	..	13
	160	..	1	..	..	4	..	..	1	..	..	..	..	..	6
	60	..	..	..	..	..	..	..	..	..	..	..	..	..	—
	100	..	..	..	..	..	..	..	..	..	..	..	..	..	—
	385	..	..	..	..	2	..	..	..	..	..	..	..	..	2
	38	..	..	..	..	..	..	..	..	..	..	..	..	..	—
	1805	..	1	4	1	7	..	2	4	..	..	1	1	..	20
	664	..	..	..	..	5	..	1	2	..	..	..	1	..	9
	88	..	..	..	..	..	..	..	..	..	..	..	..	..	—
	1380	..	1	1	4	7	..	2	2	..	..	1	..	..	18
	194	..	..	3	..	3	..	..	3	..	..	1	..	..	10
	530	..	..	..	..	4	..	1	1	..	..	..	..	..	6
Washington Sub-district	90	..	..	3	..	..	..	..	1	..	..	..	..	..	4
	250	..	..	..	..	1	..	..	1	..	..	..	..	..	2
	315	..	..	1	..	2	..	..	1	..	..	..	..	..	4
	835	..	..	1	..	8	..	..	2	..	1	..	..	..	12
	708	..	1	1	3	2	..	..	1	..	..	..	..	..	8
		..	..	1	..	..	..	..	..	..	..	..	..	..	—
Whole District ...	8280	—	5	16	10	49	1	5	23	3	3	3	2	—	117

THAKEHAM RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 9 years 1875—83.

LOCALITY.	Deaths during the 9 years 1875—83, from					Annual Death rate per 100,000 living from					
	Population in middle of period.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Pulborough Parish.....	1818	245	20	23	30	20	1497	122	140	183	122
Rest Pulborough Sub-Dis.	2095	333	33	36	52	32	1765	175	190	275	170
Storrington Parish.....	1320	173	18	19	43	12	1456	151	160	362	101
Rest Washington Sub-Dis..	3083	407	46	33	83	31	1466	165	119	299	111
Whole District	8316	1158	117	111	208	95	1547	156	148	277	126
In 1875	8371	169	23	6	40	14	2018	274	71	477	167
In 1876	8357	128	20	13	13	19	1531	239	155	155	227
In 1877	8343	107	8	9	21	2	1282	95	107	251	24
In 1878	8330	141	9	16	26	11	1692	108	192	312	132
In 1879	8316	127	9	9	26	16	1527	108	108	312	192
In 1880	8302	148	29	15	28	8	1782	349	180	337	96
In 1881	8290	114	6	17	14	8	1375	72	205	168	96
In 1882	8280	103	6	11	20	8	1243	72	132	241	96
In 1883	8280	121	7	15	20	9	1461	84	181	241	108

THAKEHAM RURAL SANITARY

TABLE 3.—Showing the Deaths and Death-rate from all causes and

PARISH.		Population in the middle of the period.	Mean annual death-rate per 1,000, all ages.	Deaths from all causes in			
				1875-80.	1881.	1882.	1883.
Washington Sub-dis. Pulborough Sub-dis.	North Stoke	100	22·2	12	3	3	2
	Amberley	565	19·8	69	11	16	5
	Rackham	158	21·8	21	4	1	5
	Greatham	60	5·5	3	—	—	—
	Hardham	104	14·9	10	—	3	1
	Cold Waltham	400	18·6	43	12	8	4
	Wiggonholt	38	9·0	2	—	—	1
	Pulborough	1818	14·9	179	19	18	29
	West Chiltington ..	670	15·6	72	10	5	7
	Parham	85	10·4	7	—	—	1
	Storrington	1320	14·5	100	22	21	30
	Sullington	210	16·9	26	2	2	2
	Thakeham	568	11·7	45	8	1	6
	Warminghurst	100	22·2	19	1	—	—
	Ashington	260	20·5	35	1	7	5
	Wiston	310	12·9	23	5	5	3
	Washington	850	14·5	88	8	3	12
	Findon	700	14·6	66	8	10	8
Whole District		8316	15·4	820	114	103	121

DISTRICT, 1875-83.

from various causes in each Parish in the nine years.

Total deaths in the nine years.	Mean annual num- ber of deaths.	Total deaths in nine years from			Mean annual death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease.	Zymotic Disease.	Phthisis.	Lung Disease.
20	2.2	3	3	4	333	333	444
101	11.2	13	6	19	225	118	373
31	3.4	6	4	4	421	281	281
3	0.3	—	—	2	—	—	370
14	1.5	—	—	3	—	—	320
67	7.4	2	13	11	55	360	305
3	0.3	—	—	—	—	—	—
245	27.2	20	23	30	122	140	183
94	10.4	9	10	9	149	165	149
8	0.9	—	—	3	—	—	392
173	19.2	18	19	43	151	160	362
32	3.5	10	1	6	529	53	317
60	6.6	6	5	10	117	97	195
20	2.2	4	1	1	444	111	111
48	5.3	2	5	17	85	213	726
36	4.0	4	4	5	143	143	179
111	12.3	12	7	24	157	91	313
92	10.2	8	10	17	127	158	269
1158	128.6	117	111	208	156	148	277

TABLE A.—Showing the Deaths during the year 1883, in the Rural District
also the Population of such Localities

Names of Localities adopted for the pur- pose of these Statis- tics; public institu- tions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	Census 1881	Estimated to middle of 1883.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
PULBOROUGH PARISH	1808	1805	61	28	6	5	—	2	7	8	Under 5. 5 upwds
REST OF PULBOROUGH SUB DISTRICT	2080	2085	59	22	5	2	—	1	3	11	Under 5. 5 upwds
STORRINGTON PARISH	1351	1380	32	27	6	1	2	2	5	11	Under 5. 5 upwds
REST OF WASHINGTON SUB-DISTRICT.	3046	3010	80	34	2	3	1	2	13	13	Under 5. 5 upwds
THAKEHAM WORKHSE	—	—	—	10	—	—	—	—	4	6	Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
TOTALS	8285	8280	232	121	19	11	3	7	32	49	Under 5. 5 upwds
Deaths occurring outside the district among persons belonging thereto											Under 5. 5 upwds
Deaths occurring within the district among persons not belonging thereto											Under 5. 5 upwds

TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the District of THAKEHAM, classed according to the Nature of the Sickness.

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS, IN PERSONS BELONGING TO THE DISTRICT OF THAKEHAM.							
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough.	Cases of Sickness.
	1	12	13	14	15	16	17	18
Pulborough Parish	Under 5 5 upwds.	.....	.....	..... 6	.....	.....	.....	.....
Rest of Pulboro' Sub-District	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....	.....
Storrington Parish	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....	.....
Rest of Washington Sub-District	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....	.....
Totals.....	Under 5 5 upwds.	.....	.....	..... 6	.....	.....	.....	.....

SOURCES OF INFORMATION :—In Workhouse and Workhouse.

Medical Officer of Health, during the year 1883, in the Rural Sanitary
relating to Localities and Diseases.

[illegible]

January, 28. Among Out-door Paupers, 196.

RURAL SANITARY DISTRICT OF EAST PRESTON.

POPULATION, 7,680 in 1871; 8,025 in 1881. AREA IN ACRES. 30,696. No. OF HOUSES, 1,467 in 1871; 1,662 in 1881.

DURING the year 1883 the births of 262 children and the deaths of 130 persons were registered; of the births 137 were male and 125 were females; of the deaths 59 were male and 71 were female.

There were 138 deaths registered in the rural sanitary district, but 8 of these occurred in East Preston Workhouse, and belong to places outside the district, viz :—Worthing 2, Littlehampton 5, and Arundel 1. These 8 deaths are, therefore, included in the reports of those urban sanitary districts. There were 24 deaths in East Preston Workhouse, of which 8 belong to other districts, and the remaining 16 have been distributed to each parish whence each inmate came, viz :—Broadwater 4, Durrington 1, Goring 2, East Preston 2, Angmering 3, Leominster 1, Poling 1, and Patching 2, in all 16.

In each parish the deaths were as follows :—Broadwater 20, Heene 5, West Tarring 4, Clapham 5, Durrington 5, Goring 20, Ferring 2, Kingston 0, East Preston 3, Angmering 14, Leominster 23, Rustington 4, Climping 6, Ford 1, Tortington 2, Poling 2, Patching 3, Warningcamp 2, Burpham 4, South Stoke 2, Houghton 3, in all 130.

The births and deaths in the whole of the district during the past nine years have been as follows :

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1875 ..	214	29·0	131	17·7
1876 ..	220	29·4	126	16·8
1877 ..	234	30·8	131	17·2
1878 ..	235	30·4	131	16·9
1879 ..	234	30·0	125	15·9
1880 ..	256	32·2	121	15·2
1881 ..	233	28·8	128	15·8
1882 ..	266	32·3	97	11·7
1883 ..	262	31·4	130	15·6

POPULATION.—The recent census returns show that this district contains 8025 persons, of whom 4065 are male and 3960 are female.

The distribution of the population at various groups of ages is here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwards.	Total.
Male ..	122	422	941	729	1411	440	4065
Female..	98	442	978	555	1491	396	3960

The greatest disparity in the proportion of the two sexes is between fifteen and twenty years of age, when the males are much in excess.

During the past five years there have been 1251 births and 601 deaths. The natural increase of population during this period by excess of births over deaths was, therefore, 650. The estimated increase of population during the same period is 620.

In each quarter the births and deaths were as follows:

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	29	27	56	22	13	35
2nd	„	33	38	71	16	19	35
3rd	„	46	31	77	14	26	40
4th	„	29	29	58	7	13	20
Total ..		137	125	262	59	71	130

A comparative statement of the births in each quarter for a term of five years shows that the mean number varies very slightly:—

		1879—81.	1882.	1883.	Total.	Mean
1st Quarter	..	165	87	56	308	61
2nd	„	175	69	71	315	63
3rd	„	177	64	77	318	64
4th	„	206	46	58	310	62
Total ..		723	266	262	1251	250

The following table shows the birth-rate in each sub-district during the past seven years:

Sub-district.	Mean of 1877-80.	1881.	1882.	1883.	Mean of. 1877-83.
Worthing	30·1	29·8	31·6	35·3	31·0
Littlehampton:	31·1	28·6	33·4	29·2	30·8
Arundel.	31·7	27·2	30·7	29·3	30·5
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total ..	30·8	28·8	32·3	31·4	30·8

The *birth-rate* in 1883 throughout England and Wales was equal to 33·2 per 1000 persons estimated to be living in the middle of the year; it showed according to the Registrar-General a further slight decline from the steadily decreasing rates in the six preceding years, and it was lower than that recorded in any year since 1849, when it was so low as 32·9.

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Total.
1st Quarter ..	3	2	2	—	10	18	35
2nd „ ..	7	4	1	1	5	17	35
3rd „ ..	8	3	2	1	12	14	40
4th „ ..	3	2	—	2	7	6	20
	—	—	—	—	—	—	—
Total ..	21	11	5	4	34	55	130

On examining Table I. it will be found that about one-sixth of the deaths are under one year of age, while nearly two-fifths are sixty years of age and upwards. A comparative statement of the deaths in each quarter during the past nine years shows that the deaths are most numerous in the first quarter of the year, while in the remaining quarters they are very nearly equal :—

	1875—80.	1881.	1882.	1883.	Total.	Mean.
1st Quarter ..	214	46	31	35	326	36
2nd „ ..	182	33	21	35	271	30
3rd „ ..	178	27	26	40	271	30
4th „ ..	191	22	19	20	252	28
	—	—	—	—	—	—
Total ..	765	128	97	130	1120	124

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Dths. under 1 year.	Ratio to 1000 Births
Worthing Sub-District	107	8	75
Littlehampton „	115	11	95
Arundel „	40	2	50
	—	—	—
Total	262	21	80

The rate of infant mortality throughout England and Wales was equal to 137 per 1000, against 130 and 141 in the two preceding years.

The following table shows the rate of infant mortality in different localities during the past eight years; in each sub-district the rate has been very low during the last two years ;—

	Mean of 1876-81.	1882.	1883.	Mean of 1876-83.
Worthing Sub-District ..	115	63	75	103
Littlehampton „	81	46	95	78
Arundel „	90	71	50	82
	—	—	—	—
Total	93	56	80	87

The 21 infantile deaths in 1883 included two from measles, two from diarrhoea, three from convulsions, three from lung diseases, seven from debility, two from premature birth, one from malformation, and one from suffocation.

The deaths from *zymotic* or catching disorders were 9 in number, against 5, 20, 11, 14, 1, 16, 20, and 7 in the eight preceding years.

The nine deaths included six from measles, two from diarrhoea, and one from diphtheria.

The rate of mortality from these diseases was 1·0 per 1,000 persons living, against a rate of 0·6, 2·6, 1·4, 1·8, 0·1, 2·0, 2·4, and 0·8 in the eight preceding years. In the past nine years there have been altogether 103 deaths from this class of disorders, or a mean annual rate of 1·4 per 1,000.

Measles prevailed very much in the second quarter of the year, and three deaths took place at Goring in June, while at Broadwater there were 3 deaths in August. All of these cases died of lung disease, following an attack of measles, and in one case the patient was forty-six years of age. This disease is chiefly fatal amongst children, but last year two persons above forty years of age died of it. During the last eight years 101 persons have died of this complaint in the whole combined district; of these 49 were male and 52 were female, so that the distribution among the sexes was very nearly equal. Ninety-nine of the cases were under fifteen years of age, and the two adults died last year in fine, warm weather. In none of the cases in this district were there any sanitary defects to account for the attack.

Diphtheria caused one death at Goring. A woman, 25 years of age, living in an isolated cottage, was taken ill on July 14th and died on July 26th. One of her children, two-and-a-half years old, was taken ill on the same day, but she recovered. The husband and the baby escaped. There were no drains to the cottage, but the closet was in a bad condition. A family of two adults and five children, living next door, drank water from the same well and used the same closet, but they escaped the disorder. There were no other cases in the neighbourhood at the time, and there was no spread of the disease. The house was disinfected and limewashed, and the closet was altered.

This district was in a very healthy state during the year, and numerous minor nuisances were remedied.

The drainage and water supply of Wick are not in a satisfactory condition, although the death-rate and disease-rate is moderate. Wick is in the parish of Leominster, and it is situated just outside Littlehampton, so that many persons live here to avoid the rates. The water supply is derived from wells, and the supply of water is abundant, and, as a rule, it is good. Yet it must

always be liable to contamination from the number of cesspools which exist in the place. Now that Littlehampton has a good water supply it would be very easy to extend the mains to Wick, and to furnish the inhabitants with excellent water.

The following summary shows the improvement that has taken place in this district in recent years, and it may be looked upon as a continuation of a similar table to be found in the sixth annual report. Similar facts for different parts of the district will be found in the appended tables which are so constructed as to make a comparison over a term of years an easy matter:

Per 100,000 Persons living.	1851-60.	1861-70.	1879-83.
All ages, both sexes.			
General Death-rate ..	1790	1822	1488
Zymotic ,, ..	335	309	131
Phthisis ,, ..	297	259	126
Lung Disease ,, ..	166 } 463	221 } 480	188 } 314
15 to 55 years.			
Phthisis Death-rate ..	{ 419 mean 445 female	{ 417 mean 393 female	{ 255 mean 199 female
Lung Disease ,, ..	{ 46 mean 34 female	{ 61 mean 48 female	{ 65 mean 73 female
Under 1 year ..			
Under 5 years ..	? 3967	11022 4086	9909 2841

Inquests were held in four cases:—Male, 23 years, found drowned; male, 26 years, natural causes, heat apoplexy; male, 70 years, suicide by drowning; male, 36 years, found drowned.

There were four deaths returned as not certified, out of a total of 130 deaths:—Female, 48 years, natural causes; female, two months, suffocation; female, 71 years, probably heart disease; male, three years, marasmus, anasarea.

There were no deaths of any children born out of wedlock, either in the Worthing or in the Arundel sub-district, out of a total of 147 births.

In the Littlehampton sub-district there were two deaths of illegitimate children, out of a total of 115 births:—Female, three months, diarrhoea, convulsions, certified; female, 12 days, diarrhoea, convulsions, certified.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

No cases occurred in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals, and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

There is no common lodging-house in the district.

No proceedings were taken before the magistrates during the year.

EAST PRESTON RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 9 years, 1875-83.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over
1875	131	19	8	9	8	40	47
1876	126	19	24	8	7	28	40
1877	131	19	9	15	9	27	52
1878	131	22	18	3	6	27	55
1879	125	24	6	5	8	27	55
1880	121	27	9	6	3	31	45
1881	128	22	5	13	7	28	53
1882	97	15	14	3	5	25	35
1883	130	21	11	5	4	34	55
Total	1120	188	104	67	57	267	437
In 1000 Deaths.....	1000	168	93	60	51	238	390

TABLE 2.—Showing the Deaths and Death-rate in each of the 9 years 1875-83, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid.	Other.							
1875...	1	..	1	..	3	..	..	..	..	5	0.6
1876...	..	3	4	2	2	..	1	1	6	..	1	..	..	20	2.6
1877...	4	2	..	..	3	..	2	..	..	..	..	11	1.4
1878...	2	2	4	..	1	..	5	..	..	..	..	14	1.8
1879...	1	..	..	..	..	..	..	1	0.1
1880...	..	1	1	2	2	..	3	..	6	..	1	..	..	16	2.0
1881...	5	9	1	..	..	..	1	2	1	..	1	20	2.4
1882...	1	5	..	1	..	..	..	..	..	..	7	0.8
1883...	..	6	..	1	..	..	..	..	2	..	..	..	..	9	1.0
Total.	—	10	16	19	15	—	11	1	25	2	3	—	1	103	1.4

EAST PRESTON RURAL SANITARY DISTRICT

TABLE 3.—Showing the Deaths and Death-rate from all causes and the Population in the middle of the period.

PARISH.		Population in the middle of the period.	Mean annual death-rate per 1,000, all ages.	Deaths from all causes in			
				1875-80.	1881.	1882.	1883.
Arundel Sub-dis. Worthing S-d. L'hampton S-d.	Broadwater	826	18·8	94	17	9	20
	Heene.....	150	29·6	29	2	4	5
	West Tarring	700	15·5	74	10	10	4
	Clapham	240	15·2	23	3	2	5
	Durrington	170	21·3	23	4	1	5
	Goring	500	20·6	58	13	2	20
	Ferring	230	13·0	19	2	4	2
	Kingston	30	14·8	2	1	1	—
	East Preston	410	8·9	26	1	3	3
	Angmering	985	15·2	90	17	14	14
	Leominster	1515	15·1	134	31	19	23
	Rustington	360	13·2	29	4	6	4
	Climping	265	11·7	15	3	4	6
	Ford	95	9·3	7	—	—	1
	Tortington	165	16·8	19	1	3	2
	Poling	180	25·3	31	4	4	2
	Patching	270	14·0	23	5	3	3
	Warningcamp	130	18·8	17	2	1	2
	Burpham	286	12·0	20	3	4	4
	South Stoke	130	16·2	13	2	2	2
	Houghton	195	14·8	19	3	1	3
Whole District		7832	15·8	765	128	97	130

DISTRICT, 1875-83.

from various causes in each Parish in the nine years 1875—83.

Total deaths in the nine years.	Mean annual num- ber of deaths.	Total deaths in nine years from			Mean annual death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease.	Zymotic Disease.	Phthisis.	Lung Disease.
140	15.5	17	15	20	228	201	269
40	4.4	4	4	3	296	296	222
98	10.9	10	7	11	159	111	174
33	3.6	2	2	4	92	92	185
33	3.6	2	1	8	130	65	522
93	10.3	14	11	12	311	244	266
27	3.0	3	3	2	145	145	97
4	0.4	—	1	—	—	370	—
33	3.6	3	6	4	81	162	108
135	15.0	9	10	14	101	112	158
207	23.0	24	31	27	176	227	198
43	4.8	1	3	5	30	92	154
28	3.1	1	1	2	42	42	84
8	0.9	—	—	—	—	—	—
25	2.8	2	—	2	134	—	134
41	4.5	3	5	6	185	308	370
34	3.8	3	4	5	123	164	205
22	2.4	1	3	2	85	255	170
31	3.4	2	1	4	76	38	152
19	2.1	1	3	2	85	255	170
26	2.9	1	2	5	57	114	285
20	124.4	103	113	138	146	160	195

EAST PRESTON RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 9 years, 1875-83.

PARISH.	Population in 1883.	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Continued Fevers			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.
Broadwater	910	..	3	5	1	2	..	2	..	2	1	..	..	1	17
Heene	160	..	..	1	1	..	..	1	..	1	..	..	..	..	4
West Tarring	770	..	..	2	1	1	..	1	..	4	..	1	..	..	10
Clapham	240	..	..	1	..	..	..	..	..	1	..	..	..	..	2
Durrington	185	..	..	..	1	..	..	1	..	..	..	..	..	..	2
Goring	535	..	3	1	8	..	..	..	..	2	..	..	..	..	14
Ferring	230	..	..	1	..	..	..	2	..	..	..	..	..	..	3
Kingston	35	..	..	..	..	..	..	..	..	..	..	..	..	..	—
East Preston	435	..	..	..	..	2	..	..	..	1	..	..	..	..	3
Angmering	1010	..	..	2	3	2	..	..	..	2	..	..	..	..	9
Leominster	1710	..	2	1	4	5	..	1	..	11	..	..	..	..	24
Rustington	365	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Climping	280	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Ford	100	..	..	..	..	..	..	..	..	..	..	..	..	..	—
Tortington	170	..	1	..	..	..	..	1	..	..	..	2	..	..	2
Poling	180	..	..	..	..	1	..	..	..	..	..	..	..	..	3
Patching	275	..	1	1	..	..	..	1	..	..	..	2	..	..	3
Warningcamp	125	..	..	..	..	..	..	1	..	..	1	..	..	..	1
Burpham	285	..	..	..	..	..	..	..	..	1	..	..	..	..	2
South Stoke	135	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Houghton	195	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Whole District ...	8330	—	10	16	19	15	—	11	1	25	2	3	—	1	103

EAST PRESTON RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 9 years 1875—83.

LOCALITY.	Deaths during the 9 years 1875—83, from		Annual Death rate per 100,000 living from				
	Population in middle of period.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases
Worthing Sub-District	2816	464	52	43	60	43	1830
Littlehampton Sub-Dis.	3660	458	38	52	52	42	1390
Arundel Sub-District	1356	198	13	18	26	32	1622
Whole District	7832	1120	103	113	138	117	1589
In 1875	7368	131	5	16	15	17	1777
In 1876	7478	126	20	15	14	8	1684
In 1877	7593	131	11	14	15	17	1725
In 1878	7710	131	14	17	18	11	1699
In 1879	7832	125	1	7	19	12	1596
In 1880	7955	121	16	15	15	9	1521
In 1881	8080	128	20	12	15	15	1584
In 1882	8230	97	7	8	14	14	1178
In 1883	8330	130	9	9	13	14	1560

TABLE A.—Showing the Deaths during the year 1883, in the Rural Districts, and also the Population of such Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	Census 1881	Estimated to middle of 1883.		At all ages.	Under 1 year.	Under 1 and under 5.	Under 5 and under 15.	Under 15 and under 25.	Under 25 and under 60.	Under 60 and upwards.	
1	2	3	4	5	6	7	8	9	10	11	12
WORTHING SUB-DIS.	2910	3030	107	54	8	7	1	3	14	21	Under 5. 5 upwds
LITTLEHAMPTON SUB DISTRICT	3753	3935	115	45	11	3	3	1	11	16	Under 5. 5 upwds
ARUNDEL SUB DIS.	1362	1365	40	15	2	1	1	—	5	6	Under 5. 5 upwds
EAST PRESTON WORKHOUSE.	—	—	—	24	—	—	—	1	6	17	Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
TOTALS	8025	8330	262	138	21	11	5	5	37	59	Under 5. 5 upwds
Deaths occurring outside the district among persons belonging thereto											Under 5. 5 upwds
Deaths occurring within the district among persons not belonging thereto				8				1	3	4	Under 5. 5 upwds

ST PRESTON, classified according to Diseases, Ages, and Localities, showing the Births therein during the year.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

Scarlatina.	Diphtheria.	Croup (not "spasmodic.")	Whooping Cough.	Con. Fevers.			Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Phthisis	Bronchitis, Pneumonia, & Pleurisy.	Heart Disease	Injuries.	All Other Diseases.
15	16	17	18	Typhus.	Enteric or Typhoid.	Other or Doubtful.	22	23	24	25	26	27	28	29	30	31	32	33
															2			9
	1													2	5	9	1	19
							2								3			9
														5		4		22
																		3
														1	1	1	2	7
														1	4			19
							2											
															5			21
	1													9	10	14	3	67
															2			6

TABLE B.—Showing the New Cases of Sickness coming to the knowledge
District of EAST PRESTON, classified

NAMES OF LOCALITIES. 1	NEW CASES OF SICKNESS, IN PERSONS BELONGING TO							
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough.	Con
	12	13	14	15	16	17	18	19
Worthing Sub-District	Under 5 5 upwds.		2 9		1 1			
Littlehampton Sub-District	Under 5 5 upwds.							
Arundel Sub-District	Under 5 5 upwds.			1				
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
Totals.....	Under 5 5 upwds.		2 9	1	1 1			

SOURCES OF INFORMATION :—In Workhouse and Workhouse
In Worthing Infirmary :—

Medical Officer of Health, during the year 1883, in the Rural Sanitary
rding to Localities and Diseases.

THE DISTRICT DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS AGE.

[illegible]

January, 14. Among Out-door Paupers, 246.

Patients, 12. Out-Patients, 243.

RURAL SANITARY DISTRICT OF MIDHURST.

POPULATION, 13,042 in 1871; 13,933 in 1881. AREA IN ACRES. 66,571. No. OF HOUSES, 2,623 in 1871; 2,797 in 1881.

During the year 1883 the births of 402 children and the deaths of 188 persons were registered; of the births 195 were male and 207 were female; of the deaths 97 were male and 91 were female.

There were 13 deaths in Easebourne Workhouse, and these have been distributed among the several parishes whence each inmate came, viz., Tillington 2, Lodsworth 1, Heyshott 1, Graffham 1, Easebourne 2, Lurgashall 1, Fernhurst 3, Stedham 1, Didling 1, in all 13.

The deaths in each parish were thus distributed:—East Lavington 2, West Lavington 2, Tillington 8, Lodsworth 7, Selham 0, Heyshott 6, Graffham 7, Cocking 5, Midhurst 28, Woolbeding 4, Easebourne 11, South Ambersham 2, North Ambersham 4, Lurgashall 12, Fernhurst 13, Linchmere 2, Linch 1, Stedham 8, Iping 9, Trotton 5, Chithurst 7, Terwick 2, Rogate 12, Harting 14, Elsted 8, Treyford 1, Didling 4, Bepton 4, in all 188.

The births and deaths in the whole of the district during the past eight years have been as follows:—

Year.		Births.	Birth-rate.	Deaths.	Death-rate.
1876	..	406	30·0	221	16·3
1877	..	429	31·5	189	13·9
1878	..	419	30·6	222	16·2
1879	..	414	30·0	233	16·8
1880	..	424	30·5	198	14·2
1881	..	412	29·4	205	14·6
1882	..	438	31·0	240	17·0
1883	..	402	28·4	188	13·2

POPULATION.—The recent census returns show that this district contains 13,933 persons, of whom 7170 are male and 6763 are female.

The distribution of the population at various groups of ages is here shown:—

	Under 1 year.	1-5	5-15	15-25	25-60	60 years and upwards.	Total.
Male....	179	779	1761	1180	2573	698	7170
Female...	219	753	1656	1041	2437	657	6763

The males are in excess at all ages except infancy,

During the past five years there have been 2090 births and

1064 deaths. The natural increase of population during this period by excess of births over deaths was, therefore, 1026.

The estimated increase of population during the same period is 519, so that there must have been a considerable migration to other districts.

In each quarter the births and deaths were as follows :

		Births.				Deaths.		
		M.	F.	Total.		M.	F.	Total.
1st Quarter	..	50	69	119		28	25	53
2nd	„	46	50	96		26	28	54
3rd	„	58	40	98		23	19	42
4th	„	41	48	89		20	19	39
Total ..		195	207	402		97	91	188

A comparative statement of the births in each quarter for a term of five years shows that they are most numerous in the first quarter, and least numerous in the last quarter, of the year :—

		1879—81.	1882.	1883.	Total.	Mean
1st Quarter	..	346	125	119	590	118
2nd	„	295	114	96	505	101
3rd	„	323	104	98	525	105
4th	„	286	95	89	470	94
Total ..		1250	438	402	2090	418

The following table shows the birth-rate in different localities during the past eight years :—

	Mean of 1876-80.	1881.	1882.	1883.	Mean of 1876-1883
Midhurst Parish	27·7	25·3	26·1	27·7	27·2
Rest of Midhurst } Sub-District .. }	30·3	29·0	29·0	29·9	29·9
Fernhurst Sub.-Dis. . .	31·1	32·8	34·8	28·4	31·4
Harting Sub-District	31·4	29·6	32·9	26·8	30·8
<hr/>					
Total ..	30·5	29·4	31·0	28·4	30·2

The *birth-rate* in 1883 throughout England and Wales was equal to 33·2 per 1000 persons estimated to be living in the middle of the year; it showed, according to the Registrar-General, a further slight decline from the steadily decreasing rates in the six preceding years, and it was lower than that recorded in any year since 1849, when it was so low as 32·9.

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Total.
1st Quarter ..	5	4	1	6	11	26	53
2nd „ ..	11	3	3	2	10	25	54
3rd „ ..	5	3	2	3	12	17	42
4th „ ..	6	4	1	2	9	17	39
Total ..	27	14	7	13	42	85	188

An examination of Table I will show that about one-sixth die under one year of age, while more than two-fifths are sixty years of age and upwards. A comparative statement of the deaths in each quarter during the past eight years shows that the deaths are most numerous in the first and second quarters of the year :—

	1876—80.	1881.	1882.	1883.	Total.	Mean.
1st Quarter ..	320	55	63	53	491	62
2nd „ ..	275	53	66	54	448	56
3rd „ ..	228	46	56	42	372	46
4th „ ..	240	51	55	39	385	48
Total ..	1063	205	240	188	1696	212

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Dths. under 1 year.	Ratio to 1000 Births
Midhurst Parish	46	2	43
Rest of Midhurst Sub-District ..	151	12	79
Fernhurst Sub-District	71	6	84
Harting Sub-District	134	7	52
Total	402	27	67

The rate of infant mortality throughout England and Wales was equal to 137 per 1000, against 130 and 141 in the two preceding years.

The following table shows the rate of infant mortality in different localities during the past eight years :—

	Mean of 1876-81.	1882.	1883.	Mean of 1876-83.
Midhurst Parish	94	186	43	99
Rest of Midhurst Sub-Dis... ..	78	96	79	80
Fernhurst Sub-District	92	116	84	94
Harting „	84	128	52	85
Total	84	121	67	86

The 27 infantile deaths in 1883 included one from whooping-cough, one from hydrocephalus, six from convulsions, seven from lung diseases, five from debility, one from teething, five from premature birth, and one from exposure.

The deaths from *zymotic* or catching disorders were 16 in number, against 11, 24, 23, 12, 9, 19, and 32 in the seven preceding years.

These sixteen deaths included five from small-pox, three from scarlatina, two from diphtheria, two from whooping-cough, one from enteric fever, and three from diarrhoea.

The rate of mortality from these diseases was 1·1 per 1000 persons living against a rate of 0·8, 1·7, 1·6, 0·8, 0·6, 1·3, and 2·2, in the seven preceding years.

In the past eight years there have been altogether 146 deaths in this class, or a mean annual rate of 1·3 per 1000.

SMALL POX AT A PAPER MILL.

At the small village of Iping, about two-and-a-half miles from Midhurst, there is a paper mill owned by Messrs. Warren and Co. This mill is situated on the banks of the River Rother, and several persons are employed here in the manufacture of blotting-paper. The rags come from all parts of the country, and also from foreign countries, to the nearest station at Elsted, and then the bales are conveyed by waggon to the mill. The rags are then sorted, dusted and cut into, small pieces, after which they are boiled and bleached and converted into paper. The average time occupied between opening a bale and converting it into paper is about two days.

At the end of April two men and fourteen women were here engaged in the rag-loft in sorting the rags; the women were chiefly engaged in sorting, while the men opened the bales and conveyed the rags across the stream to the mill. The loft is an old wooden structure, admitting plenty of air, and it is quite separate from the mill, being on the opposite side of the stream. The workpeople live in the villages around, some at Iping, some at Stedham, and some at Iping Marsh, a distance of two or three miles.

On May 11th, 1883, I visited Iping, having heard that small-pox had broken out there and also at Stedham. There are four small cottages at Iping, close to the mill, and in the two end houses there were two cases of small-pox.

1	2	3	4
---	---	---	---

No. 1 was occupied by a family who left at once and did not have small-pox.

No 2 was occupied by John M., wife and daughter, 11 years old ; they had all been vaccinated in infancy, and the wife and daughter were successfully re-vaccinated on May 19th in three places each ; the man had small-pox years ago. They did not catch the disease now.

No. 3 was occupied by George H., his wife, Ellen H., a sister, Emily H., three young children, and two male adult lodgers who worked in the mill.

Emily H., 20 years, a rag sorter in Iping Mill, was taken poorly on May 8th with pain in the back and headache ; the rash of modified small-pox was well out on the 11th ; she was not ill enough to be in bed, and she soon recovered ; she had two good old marks. All the inmates of this house had good vaccination marks. The patient was at once removed to No. 4, next door, and after May 11th she had no communication with the other inmates. The rest were advised to stay at home and to be re-vaccinated at once, as they had all been exposed to the infection. The re-vaccination had the following result :—

George H., 35 years, re-vaccinated on May 12th, no result.

Ellen H., 36 years, ditto ditto

Henry Merton H., 12 years, ditto ditto

William H., 7 years, ditto ditto

Geraldine H., 4 years, ditto ditto

William D., 21 years } lodgers ditto ditto

Moses S., 18 years } ditto successful

This family was sent away by the owner, Mr. W., on May 12th, D. going to his father at Kingsham, while the rest went to Bramshott ; both these places are a few miles away.

No. 4 was occupied by Frank H., his wife and four children.

Frank H., 3 old marks, re-vaccinated May 12. No result.

Jane H., the wife, 3 old marks, ditto ditto

Clara H., 15 years, 3 old marks.

Ethel H., 8 years, 4 old marks. Not re-vaccinated.

George H., 5 years, 3 old marks. ditto

Arthur H., 4 months, 2 old marks. ditto

Clara H. went to the mill on May 8th and came back midday with pain in the head and back, sickness, &c. A rash appeared on May 10th, but it did not come out well ; she became comatose on the evening of May 11th, and died on May 12th ; she was buried the same evening by two men named M and G. ; G. had had small-pox, and M. was re-vaccinated early on May 13th ; they neither of them caught the disease.

The father and two young children were sent away to a friend's on May 11th, and the mother remained with the baby to nurse her daughter. The father, however, did not stay

away, so he was put up in a shed near, and he was very useful in going on errands for the sick.

The girl, Emily H., was also brought to this house on May 11th, so as to have both cases under one roof, and Mrs. H. undertook to act as nurse.

The parents of Clara H. never had the disorder, and the baby escaped as well.

At this time there were, therefore, two primary cases of small-pox at Iping, one mild in character and one virulent and fatal.

The area of infection was limited to the inmates of these four houses, as there were no other cottages very near.

Stedham is a village about one mile from Iping, and here there was a case of small-pox occurring in a young man who worked at Iping paper mill.

There were here three cottages forming a small row, and separated by a road from some other cottages near.

5	6	7
---	---	---

No 5 was occupied by William B, wife and grown-up son. No. 6 was occupied by James D., wife and five children. No. 7 was occupied by Alfred L., wife and two young children.

On May 11th small-pox had appeared in No. 6, where Frederick D. was lying very ill; he had been vaccinated in infancy in two places, but only one rose; he was now 21 years old. He was poorly on May 5th and 6th, but on going to the mill on May 7th he felt so ill that he returned at once and went to bed; the rash appeared in the evening.

The other inmates of No. 6 were as follows:—

James D., the father, 2 old marks; not re-vaccinated.

Ann D., the mother, 2 old marks; re-vaccinated on May 12.
No result.

Obed D., 15 years, 3 good marks; re-vaccinated on May 12.
No result.

James D., 10 years, 4 good marks; not re-vaccinated.

Letitia D., 7 years, 4 good marks; not re-vaccinated.

Beatrice D., 15 months, 4 good marks; not re-vaccinated.

The father and three children were at once removed to an empty cottage, while the mother remained with the baby to nurse her son. Frederick D. soon became worse, and he died of confluent small-pox early on May 18th, and he was buried early on May 19th by B. and S.

Here at Stedham there was, therefore, a second centre of infection, in which there was one primary case, and the area of danger was pretty well limited to the cottage on either side, as no one in the other houses would pass near the infected spot.

In Iping Marsh, at a place called Knap, there are some scattered cottages on the hill-side.

Small-pox appeared here in a semi-detached cottage, No. 8, occupied by Lois L., wife, two young children, and an adult girl. The following were the inmates:—

Lois L., 29 years, doubtful if vaccinated in infancy, vaccinated on May 12 and 15 in five places successfully.

Fanny L., 25 years, never has been vaccinated.

Florence L., 4 years, 2 good marks; not re-vaccinated.

Lois L., 1½ years, 4 good marks; ditto

Mary A., 20 years, 2 good marks; vaccinated on May 15th; no result.

The wife, Fanny L., worked as a rag-sorter at Iping Mills, and she was last there on May 5th; on May 7th she had pain in the back and headache, and the rash of small-pox appeared on May 9th.

She had a severe attack, but eventually recovered.

Mary A., who lodged here, also worked at Iping Mills as a rag-sorter; she was poorly on May 11th, and she had the rash of modified small-pox on May 15th. She had a very mild attack, and soon recovered.

The inmates of this cottage were all kept at home, and no one else in this house was attacked.

In the next cottage, No. 9, there lived a man named George C., wife and two young grandchildren.

George C., 68 years; no marks of vaccination.

Mrs. C., 66 years, vaccinated when a child; re-vaccinated on May 15, successfully,

Elizabeth C., 9 years, 3 good marks.

Frederick C., 6 years, 3 good marks.

9	8
---	---

About 200 yards away there was a row of three more cottages, in one of which small-pox appeared.

10	11	12
----	----	----

In No. 10 there lived an old man and his wife; they were not attacked.

In No. 11 there lived a man named William M., with his mother and sister.

William M., 27 years, 3 good old marks; re-vaccinated on May 12th in three places successfully.

Anna M., 13 years, 2 good old marks; re-vaccinated on May 15th successfully.

Mrs. M. 58 years; vaccinated in infancy. Worked as a rag-sorter at Iping Mill; she was at the mill on May 9th. but feeling ill, she came home; the rash appeared on May 13th, and after a severe attack she died on the evening of May 18th, and she was buried the next day by B. and S., the same men who in the morning had buried Frederick D.

In No. 12 there dwelt Stephen Holder, his wife and five children; in this house the disease never appeared.

This made, therefore, a third centre of infection, and here too the area of danger was limited by the isolated position of the houses. In these three centres there were twelve cottages, and in five of these houses small-pox appeared nearly at the same time.

In Iping two houses, two cases.

„ Stedham one house, one case.

„ Iping Marsh (Knapp) two houses, three cases.

It will be noticed that these three centres were long distances apart, and there was nothing in common amongst the infected inmates except the one fact that they were all engaged as rag-sorters at Iping Mill.

There had been no fair in the district, nor had any of the patients been anywhere together in such a way that they might have come across some infected person. Their daily life was engaged in working at the mill, and none of them had been absent from their work for some weeks except on Sundays. There was no known case of small-pox in the district nor for miles around, nor was any other person attacked in the first instance except the above six persons who worked at Iping Mill. And it will be observed that all the cases were those of rag-sorters; out of sixteen persons engaged in this occupation six, or 37·5 per cent, were attacked.

Among the others employed in the mill in other ways not a single person had small-pox.

It is natural to expect that this disease would in the first place appear among those handling infected rags, for when the rags have been boiled and exposed to the action of chloride of lime so as to become bleached, it is most probable that they then cease to be infectious.

The six primary cases may here be compared as follows:—

	Age.	Sex.	Occupation.	Date of illness.	Result.
1. Frederick D..	21	M	rag-sorter	May 7	Died May 18th
2. Fanny L....	25	F	ditto	„ 7	Recovered
3. Clara H....	15	F	ditto	„ 8	Died May 12th
4. Emily H....	20	F	ditto	„ 8	Recovered
5. Mrs. M.....	58	F	ditto	„ 9	Died May 18th
6. Mary A.....	20	F	ditto	„ 11	Recovered

In a few days half the patients, or 50 per cent., had died.

Of the six cases five had been successfully vaccinated in infancy but had not been re-vaccinated; of these five, three died; the remaining case had never been vaccinated, and she recovered.

In house No. 1 all the people went away at a very early stage and before they could have run much chance of infection, nor did they have the disorder; but in all the other eleven houses there was much danger and especially so in Nos. 3, 4, 6, 8, and 11, where the disease had actually broken out.

In these eleven houses there were 29 adults and 23 children, in all 52 persons; six adults had small-pox, so that there were 46 persons left who were all more or less liable to catch the disease.

Infected houses.	No.	Adults.		Children under 15.		Total Persons.
		M.	F.	M.	F.	
{	3	3	2	2	1	8
	4	1	2	2	1	6
	6	2	1	2	2	7
	8	1	2	1	1	5
	11	1	1	—	1	3—29
	2	1	1	—	1	3
	5	2	1	—	—	3
	7	1	1	1	1	4
	9	1	1	1	1	4
	10	1	1	—	—	2
	12	1	1	3	2	7—23
Total.....		15	14	12	11	52
		29		23		

There were, in addition, the four men who buried the bodies, of whom two had had small-pox and two were at once re-vaccinated.

The inmates in each house and in many neighbouring houses were advised to be vaccinated. At Stedham and Iping this was very unsuccessful; in houses numbered 3, 4, and 6 eleven persons were re-vaccinated, but in only one case with partial success; about 30 persons in these places were re-vaccinated with the same lymph, and in nearly all the cases with no result. In three cases the operation was performed by another medical man, and in each case with success.

The lymph which failed was the fourth remove from the calf, and it was used by the public vaccinator, who has had much experience.

In other cases with different lymph the operation proved successful, and in no case did any person catch small-pox after the arm had risen.

It should also be noticed that many who had but faint marks, and who had never been re-vaccinated successfully, failed to catch the disease. Thus Mrs. D. and Mrs. H., who nursed their children, and where in each house there was a fatal case, never caught the disease.

Isolation was carried out very well, and the more readily as no one would go near the infected places. In each of the three places a man was employed to act as messenger, to go on errands, to bring food, medicine, &c. No one who acted as a messenger caught small-pox.

In eight of the houses the inmates remained at home; in Nos. 3, 4. and 6 some of them were sent away. In the case of No. 3 two persons had the disease after leaving, in No. 4 there were no fresh cases, and in No. 6, where the children were removed to an empty cottage, the only boy who failed was brought back at once to the original infected spot. These cases will be further mentioned presently.

In each case when a death occurred the house was fumigated with burning sulphur, and all the clothes and bedding in the sick room were burnt.

As the people in the infected houses were out of work, the Board of Guardians supplied them with food and all necessaries, and this was supplemented in many cases by articles sent in to the sick by persons living near.

Some days elapsed, and then there arose another series of cases, not as in the first instance among rag-sorters, but amongst persons not engaged in the mill, and who in each case had been exposed to infection from one of the primary cases.

On May 21st James D., 10 years old, who was removed to an empty cottage on May 12th, began to feel poorly, so he was taken back to No. 6 at once, his brother having previously died. He had the rash out well on May 23rd, and after a severe attack he recovered. No other member of the family had the disease.

On May 24th Mrs. H., who had gone from No. 3 at Iping on May 12th to her parents at Bramshott, was taken ill, and on May 27th the rash appeared; she was brought back to Iping on the same day with her husband and children. There was no other case at Bramshott.

Mrs. H. died of malignant small-pox on the morning of May 30th, and she was buried the same evening by her husband and by one of the men previously employed who had had small-pox.

Neither James D. nor Mrs. H. had seen an infected person after May 11th, so that these two persons must have caught small-pox just before leaving their homes, and the period of incubation was at least 10 days and 13 days respectively.

William D., one of the lodgers in No. 3, went to his father's house at Kingsham on May 12th; he had a

slight rash on May 24th, but he was able to get about; he was vaccinated in infancy, but it did not take; 1 doubtful mark. His bed and bedding were burnt, and the house was well fumigated with sulphur, and he himself was placed in a shed away from the rest of the family. At Kingsham there lived the parents and six other children; all the inmates, except the baby, were vaccinated on May 29 and 30, and in each case with good results. No other member of this family was attacked. By sending away H.'s family the disease appeared in two other places, but no spread took place, and the re-vaccination proved successful.

On May 26th George B., 19 years of age, who lived at No. 5 at Stedham, next door to D., was taken ill, and the rash appeared on May 29th. He had a very mild attack.

On the same day Mrs. B., 64 years, was taken poorly, and she had a few spots out on May 29th; her case was a very mild one; she had two good old marks, but was not re-vaccinated.

William B., 68 years, was poorly on May 30th, but he was not confined to his bed; vaccinated in infancy; not re-vaccinated.

George B., two good marks; re-vaccinated on May 27th, but without result.

At No. 7, the other side of D.'s, there were two very mild cases.

Alfred L., 32 years, fell ill on May 28th, and he had a very mild attack. There were three good old marks on his right arm and also one on the left arm; not re-vaccinated.

Mrs. L., 30 years, three good marks; re-vaccinated on May 24th and one place rose partially; she did not have the disorder.

Amy L., 4 years, with four good marks on her left arm, fell ill on May 28th and had a mild attack.

Horace L., 2 years, four good marks; escaped.

These last five cases must have caught the disease from Frederick D. at No. 6.

There were no other cases at Stedham.

On May 29th Merton H., 12 years, was taken ill at No. 3, Iping, and he had a mild attack of small-pox. He and his mother, as well as James D., all caught the disease from Emily H., and they were all re-vaccinated unsuccessfully.

Thus, in the course of eight days, the disease appeared again amongst nine persons, and in one case it proved fatal.

In consequence of this secondary outbreak, and of the alarm which was felt at Iping and Stedham, I advised the Midhurst Rural Sanitary Authority to take temporary measures for removing fresh cases to an isolated spot, and the Authority gave me power to take whatever steps I thought proper to stay the outbreak. As there was no building which could be obtained for the purpose of a hospital, and as the weather was fine and warm, I resolved to make a camp on Stedham Common, nearly

a mile from the infected spots. Here a marquee, 40ft. by 20ft., was put up on May 31st, and also four bell tents; beds and bedding were provided, and planks were roughly laid down to form a flooring. A horse and light cart were used to remove the patients, and in the evening D. was brought in from Kingsham and Merton H. was brought in from Iping. These two patients were quite able to walk about, but they were kept in bed for a day or two in the large tent. One bell tent was occupied by a hospital nurse, while two other bell-tents were occupied by the healthy members of H—l's and H—k's families.

Some more bell-tents were sent for, and on June 1st the Stedham cases were removed in the evening, accompanied by a hospital nurse. There were four more beds put up in the marquee, making six in all. The bell-tents were provided to accommodate the healthy members of the families. In this way all the cases at Iping and Stedham were removed, and the infected houses Nos. 3, 4, 6, and 7 were empty.

There still remained a few cases at Knapp, in Iping Marsh, but as the distance was great, and the patients there were doing well, they were not removed.

On May 31st there were 12 in camp, and on June 1st there were 25 in the camp, including the two trained nurses.

There was a plentiful supply of provisions sent to the camp, which was pleasantly situated on a sandy common, a long way from any habitation. Persons sending things to the patients left them at a flag-pole about 300 yards away.

Water was delivered by a water-cart, which held about two days' consumption. The cooking and washing was done at the camp, and all excreta, &c., were buried at once at a spot some distance from the tents. In a day or two all the patients had clean things on, and were able to sit up and help, and in a short time they all seemed to enjoy the novelty of the life.

On June 4th Mrs. Ann H., 64 years, fell ill at Knapp with small-pox, and was brought into the camp on June 6th. She had a very mild attack and recovered.

Mrs. H. lived in a cottage with her granddaughter, Elizabeth L.; she was in receipt of relief and had not left her bed for more than a month. She lived quite 100 yards away from an infected house, and she thinks she caught the disease by the medical man going to see her after he had visited one of the small-pox cases. E. L., 13 years, came into camp with her grandmother, and she felt poorly on June 15th, and had a few spots of modified small-pox.

Mrs. H. was vaccinated in infancy, but not since. E. L. had one good old mark and she was re-vaccinated on June 8th, but without success.

There was one other case from Knapp in a cottage next door to L.'s, and which I have called No. 9.

George C., 68 years, who lived at No. 9, did not think he ever had been vaccinated, nor would he consent now ; he was taken ill on June 8th and came into camp on June 10th : he was very ill, and died on June 15th, being buried next day at Knapp by H. and L.

Mrs. C. was re-vaccinated successfully on May 15th, and did not catch the disease, nor did either of her young grandchildren.

S., who helped to bury two of the deceased, had had small-pox when a boy ; he and B. were kept for a fortnight by the parish, as no one would take them in when it was known what they had done. They lived in a small hut on Midhurst Common, and they were provided with all they wanted on condition they kept away from anyone. At the end of a fortnight S. had modified small-pox, but in a mild form, while his comrade escaped altogether.

As S. was marked with small-pox he thus had it a second time. He could not be persuaded to come into the camp, so these two men stayed in the hut and amused themselves with fishing or reading for 23 days, at the end of which time they were given a complete suit of clothes each, and the old ones were burnt on the spot. These men did not spread the disorder.

On June 6th there were 27 persons in the camp—7 men, 7 women, 11 children, and 2 nurses ; and on June 14th there were 29 persons in the camp ; this number was reduced by one death on June 15th, and there were 28 persons to provide for until June 20th, when 15 returned to their home ; on June 22nd one more left and another on June 23rd, leaving 11 in camp on that date. By June 30th all the patients were well, and the outbreak was over. The tents were well fumigated, and exposed to the weather ; they were packed up and stored away in a shed on July 4th. The bell tent in which George C. died, and also his bedding, were burnt.

In the mean time, while the patients were in camp, the houses were fumigated three times with burning sulphur ; the ceilings and walls were washed with hot lime and water and then whitewashed ; all the floors and woodwork were well scrubbed ; and clothing, bedding, &c., which were not destroyed were well disinfected in carbolic acid and washed in boiling water.

Fresh bedding, clothing, &c., were supplied in compensation by the Sanitary Authority.

In addition to the six primary cases, there were thirteen secondary ones ; these nineteen cases occurred in a total of sixty-five persons exposed to the danger of infection ; of these sixty-five cases two had never been vaccinated, and both had the disease, one dying from it. The remaining sixty-three were more or less protected by vaccination, and of these 17 fell ill, and three died.

The primary cases were far more severe than the secondary ones, and the mortality also was much greater; most of the secondary cases were very mild, and recovery took place in a few days.

The number of persons attacked are here shown in a short summary :--

At Iping two primary cases ; three secondary ones.

„ Stedham one „ six „

„ Knap three „ three „

And one man (S.) on Midhurst Common was a secondary case, probably caught at Stedham.

The following is a list of the secondary cases :—

Name.	Age.	Sex.	Date of attack.	Result.
J. D.	10	M.	May 21	Recovered
E. H.	36	F.	„ 24	Died May 30
W. D.	21	M.	„ 24	Recovered
H. H.	12	M.	„ 29	„
Mrs. B.	64	F.	„ 26	„
G. B.	19	M.	„ 26	„
W. B.	65	M.	„ 30	„
A. L.	32	M.	„ 28	„
Amy L.	4	F.	„ 28	„
W. H.	64	F.	June 4	„
G. C.	68	M.	„ 8	Died June 15
E. L.	13	F.	„ 15	Recovered
— S.	42	M.	„ 1	„

	Adults.		Children.		Persons.
	M.	F.	M.	F.	Total.
Primary cases	1	5	0	0	6
Secondary Cases	7	3	1	2	13
Escaped	16	9	11	10	46
	<hr/>		<hr/>		<hr/>
	41		24		65

Of the 65 cases :—

Three had had small-pox ; two escaped, and one fell ill.

Two were never vaccinated ; one died, and one recovered.

Sixty were vaccinated ; 16 had small-pox, and 44 escaped.

Of those who were re-vaccinated successfully none took the disease; on the other hand, several who were not re-vaccinated did not take the disease, although they helped to nurse the patients, *e.g.*, Mrs. H. and Mrs. D.

Of the 19 cases of illness five died, and 14 recovered.

Unvaccinated—two cases, one death; mortality 50 per cent.

Vaccinated—16 cases, four deaths; mortality 25 per cent.

Had small-pox when young—one case, no death.

The following summary shows the improvement that has taken place in this district in recent years, and it may be looked upon as a continuation of a similar table to be found in the sixth annual report. Similar facts for different parts of the district will be found in the appended tables which are so constructed as to make a comparison over a term of years an easy matter:

Per 100,000 Persons living.	1851-60.	1861-70.	1879-83.
All ages, both sexes.			
General Death-rate ..	1818	1761	1521
Zymotic ,, ..	321	243	125
Phthisis ,, ..	275 } 451	215 } 409	145 } 363
Lung Disease ,, ..	176 }	194 }	218 }
15 to 55 years.			
Phthisis Death-rate ..	{ 455 mean 539 female	{ 360 mean 407 female	{ 247 mean 228 female
Lung Disease ,, ..	{ 56 mean 58 female	{ 57 mean 43 female	{ 36 mean 37 female
Under 1 year	?	10843	9648
Under 5 years	3884	3539	2995

There were four deaths returned as “not certified,” out of a total of 188 deaths:—Male, 5 weeks, bronchitis; female, 38 years, white leg; female, about 73 years, rupture of blood-vessel; male, 71 years, rupture of aneurism of the aorta.

There were two deaths of illegitimate children in Midhurst sub-district, out of a total of 197 births; male, two days, premature birth; female, two days, premature birth. There were no deaths of any children born out of wedlock either in the Fernhurst or Harting sub-districts, out of a total of 205 births.

Inquests were held in five cases—male, 40 years, natural causes, fatty degeneration of the heart; male, 18 years, found dead in the river Rother; female infant, newly born, found on the bank of the river Rother; female, 67 years, accidentally burnt to death; male, 56 years, concussion of spine caused by accidental fall from hay-cart.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

There was no case during the year in which it was found necessary to condemn meat or any other article of food which had been exposed for sale.

The bake-houses and slaughter-houses have been inspected at intervals, and they have been kept in a cleanly state.

No proceedings were taken before the magistrates during the year.

MIDHURST RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 8 years, 1876-83.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over
1876	221	36	14	10	5	60	96
1877	189	30	15	12	9	50	73
1878	222	37	20	21	8	49	87
1879	233	40	16	11	8	50	108
1880	198	38	17	7	11	37	88
1881	205	34	22	10	9	42	88
1882	240	53	28	21	10	53	75
1883	188	27	14	7	13	42	85
Total	1696	295	146	99	73	383	700
In 1000 Deaths.....	1000	174	86	58	43	226	413

TABLE 2.—Showing the Deaths and Death-rate in each of the 8 years 1876-83, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid.	Other.							
1876...	2	..	1	2	..	..	4	..	1	..	1	..	..	11	0·8
1877...	..	2	2	3	9	1	1	1	1	3	1	..	..	24	1·7
1878...	2	4	..	2	3	..	4	1	6	..	..	..	1	23	1·6
1879...	..	1	..	6	1	..	1	..	1	2	..	..	..	12	0·8
1880...	..	..	..	1	4	..	..	..	3	..	1	..	..	9	0·6
1881...	..	..	3	4	1	..	6	..	1	1	2	..	1	19	1·3
1882...	..	5	7	9	6	..	1	..	1	1	2	..	..	32	2·2
1883...	5	..	3	2	2	..	1	..	3	..	..	..	..	16	1·1
Total.	9	12	16	29	26	1	18	2	17	7	7	—	2	146	1·3

MIDHURST RURAL SANITARY DISTRICT

TABLE 3.—Showing the Deaths and Death-rate from all causes

PARISH.		Population in the middle of the period.	Mean annual death-rate per 1,000, all ages.	Deaths from all causes			
				1876-80.	1881.	1882.	1883.
Midhurst Sub-Dis.	East Lavington	220	9.6	13	2	—	—
	West Lavington ..	160	12.5	9	4	1	—
	Tillington	880	16.0	82	12	11	—
	Lodsworth	682	15.2	48	15	13	—
	Selham	50	17.5	7	—	—	—
	Heyshott	440	17.3	32	11	12	—
	Graffham	420	14.2	32	2	7	—
	Cocking	570	14.7	43	13	6	—
	Midhurst	1598	16.8	134	22	32	2
	Woolbeding	360	16.6	33	5	6	—
Fernhurst S.D.	Easebourne	1010	14.1	73	12	18	1
	South Ambersham...	120	17.7	10	3	2	—
	North Ambersham..	165	11.3	7	2	2	—
	Lurgashall	735	14.1	57	8	6	1
	Fernhurst	1062	16.2	79	20	26	1
	Linchmere	342	14.2	25	5	7	—
	Linch	98	7.6	3	1	1	—
	Stedham	535	17.0	49	5	11	—
	Iping	515	11.1	25	6	6	—
	Trotton	410	15.8	34	6	7	—
Harting Sub-Dis.	Chithurst	330	12.1	17	5	3	—
	Terwick	175	12.8	12	2	2	—
	Rogate	990	14.5	71	13	19	1
	Harting	1275	16.1	102	21	28	1
	Elsted	203	24.6	24	3	5	—
	Treyford	145	18.9	14	4	3	—
	Didling	90	25.0	11	—	3	—
	Bepton	260	13.0	17	3	3	—
Total		13840	15.3	1063	205	240	18

TRICT, 1876-83.

various causes in each Parish in the eight years 1876—83.

eight years.	Mean annual number of deaths.	Total deaths in eight years from			Mean annual death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease.	Zymotic Disease.	Phthisis.	Lung Disease.
17	2·1	2	1	—	113	57	—
16	2·0	1	2	—	78	156	—
13	14·1	10	18	12	143	255	170
83	10·4	5	14	4	91	256	73
7	0·9	—	—	—	—	—	—
61	7·6	12	2	10	341	56	284
48	6·0	4	9	4	119	268	119
67	8·4	4	9	9	87	197	197
16	27·0	12	24	26	93	187	203
48	6·0	3	1	7	104	34	243
14	14·2	3	12	14	37	148	173
17	2·1	1	1	2	104	104	208
15	1·9	1	4	2	76	303	151
83	10·4	11	9	14	187	153	238
38	17·2	13	17	23	153	200	270
39	4·9	4	1	8	141	35	283
6	0·7	—	1	—	—	127	—
73	9·1	7	5	5	163	116	116
46	5·7	6	2	9	145	48	218
52	6·5	10	6	9	304	183	274
32	4·0	1	3	7	38	113	264
18	2·2	—	2	4	—	142	285
15	14·4	9	8	6	113	101	75
65	20·6	19	11	24	186	107	235
40	5·0	5	5	4	308	308	246
22	2·7	—	2	2	—	172	172
18	2·2	2	3	1	278	417	139
27	3·4	1	2	5	48	96	240
96	212·0	146	174	211	131	157	190

MIDHURST RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 8 years 1876—83.

LOCALITY.	Deaths during the 8 years 1876—83, from					Annual Death rate per 100,000 living from					
	Population in middle of period.	All Diseases	Zymotic Disease.	Phtthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phtthisis.	Lung Disease.	Heart Disease.
Midhurst Parish.....	1598	216	12	24	26	20	1689	93	187	203	156
Rest of Midhurst Sub-Dis..	4912	591	45	69	62	68	1504	116	175	157	173
Fernhurst Sub-District	2402	281	29	32	47	28	1462	151	166	244	145
Harting Sub-District	4928	608	60	49	76	72	1542	152	124	192	182
Whole District	13840	1696	146	174	211	188	1531	131	157	190	169
In 1876	13501	221	11	22	19	31	1636	81	162	140	229
In 1877	13595	189	24	27	11	18	1390	176	198	80	132
In 1878	13691	222	23	23	28	24	1621	168	168	204	175
In 1879	13789	233	12	26	31	32	1689	87	188	224	232
In 1880	13884	198	9	21	28	21	1425	64	151	201	151
In 1881	13987	205	19	14	33	20	1465	135	100	236	143
In 1882	14100	240	32	21	36	19	1702	227	149	255	134
In 1883	14210	188	16	20	25	23	1323	112	140	175	161

MIDHURST RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Total Deaths from Zymotic Diseases in each Parish in 8 years, 1876-83.

PARISH.	Population in 1883.	Small Pox	Measles.	Scarlatina	Diphtheria	Whooping Cough	Typhus.	Enteric or Typhoid.	Other or doubtful	Diarrhoea	Rheuma Fever.	Erysipel	Pyæmia.	Puerpera Fever.	TOTAL.
East Lavington	225	..	..	..	..	..	..	2	..	1	..	..	..	..	2
West Lavington	150	..	..	..	..	..	..	1	..	1	..	..	..	..	1
Tillington	890	2	..	3	1	..	..	1	1	1	..	..	..	..	10
Lodsworth	700	..	1	..	1	2	..	..	..	..	..	1	..	..	5
Selham	50	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Heyshott	460	..	..	..	8	..	..	3	..	..	1	..	..	..	12
Graffham	415	2	..	..	..	2	..	..	..	..	1	1	..	1	4
Cocking	600	..	..	..	..	1	..	..	..	2	..	..	..	..	4
Midhurst	1660	..	2	..	..	5	..	3	..	1	..	..	..	..	12
Woolbeding	365	..	..	..	..	1	..	1	..	2	..	1	..	..	3
Easebourne	1070	..	..	..	..	..	..	..	..	2	..	1	..	..	3
South Ambersham	125	..	..	..	..	..	..	..	..	..	..	1	..	..	1
North Ambersham	170	..	..	..	..	..	..	..	..	1	..	1	..	..	1
Lurgashall	735	..	1	..	7	2	..	3	..	1	..	..	..	1	11
Fernhurst	1145	..	..	..	5	2	..	..	..	1	1	1	..	..	13
Linchmere	350	..	..	..	3	..	..	..	..	1	..	..	..	..	4
Linch	100	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Stedham	545	1	2	1	..	2	..	..	..	2	..	..	..	..	7
Iping	530	4	..	..	..	..	..	..	..	1	..	..	..	..	6
Trotton	405	..	1	..	3	2	..	1	..	2	..	1	..	..	10
Chithurst	340	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Terwick	190	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Rogate	990	..	1	1	..	2	..	3	1	..	1	..	..	..	9
Harting	1280	..	3	11	1	2	..	1	..	2	1	1	..	..	19
Elsted	210	..	..	..	..	2	..	..	..	..	..	..	..	..	5
Treyford	150	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Didling	85	..	1	..	..	..	..	..	..	..	1	..	..	..	2
Bepton	275	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Whole District	14210	9	12	16	29	26	1	18	2	17	7	7	—	2	146

Harting Sub-District. Fernhurst S.D. Midhurst Sub-District.

TABLE A.—Showing the Deaths during the year 1883, in the Rural Districts, and also the Population of such Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	Census 1881	Estimated to middle of 1883.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
MIDHURST PARISH	1615	1660	46	28	2	1	1	1	6	17	Under 5. 5 upwds
REST OF MIDHURST SUB DISTRICT	4926	5050	151	47	11	3	1	4	11	17	Under 5. 5 upwds
FERNHURST SUBDIS.	2435	2500	71	28	6	3	2	4	3	10	Under 5. 5 upwds
HARTING SUB-DIS.	4957	5000	134	72	7	7	2	4	19	33	Under 5. 5 upwds
EASEBOURNE WORKHOUSE.				13	1	—	1	—	3	8	Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
TOTALS	13933	14210	402	188	27	14	7	13	42	85	Under 5. 5 upwds
Deaths occurring outside the district among persons belonging thereto											Under 5. 5 upwds
Deaths occurring within the district among persons not belonging thereto											Under 5. 5 upwds

TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the
District of MIDHURST, classed according to the Nature of the Sickness.

NAMES OF LOCALITIES. 1	NEW CASES OF SICKNESS, IN PERSONS BELONGING TO THE DISTRICT OF MIDHURST, CLASSED ACCORDING TO THE NATURE OF THE SICKNESS.						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough. 18
Midhurst Parish	Under 5 5 upwds.	..... 1	.....	.....	.....	.....	.....
Rest of Midhurst Sub-Dis.	Under 5 5 upwds.	.....	.....	..... 2	.....	.....	.....
Fernhurst Sub-District	Under 5 5 upwds.	.....	.....	1 4	2 3	.....	1 3
Harting Sub-District	Under 5 5 upwds.	1 16	1 2	5 13	..... 1	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
Totals.....	Under 5 5 upwds.	1 17	1 2	6 19	2 4	.....	1 3

SOURCES OF INFORMATION :--In Workhouse and Workhouse

he Medical Officer of Health, during the year 1883, in the Rural Sanitary
according to Localities and Diseases.

TO THE DISTRICT DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE.									
FEVERS.									
Enteric or Typhoid	Other or Coubful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever.	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox, or Pneu- monia, which the Medi- cal Officer of Health thinks well to record.
20	21	22	23	24	25	26	27	28	
.....
.....	1	.....	.....	.....	.....	.....	.....	.....
.....	2	.....	.....	.....	.....	.....	.....	.....
.....	1	.....	.....	.....	.....	.....	.....	.....
.....	1	.....	.....	.....	.....	.....	.....	.....
.....	6	.....	.....	.....	.....	.....	.....	.....
.....
.....
.....
.....
.....
.....
.....
.....	3	.....	.....	.....	.....	.....	.....	.....
.....	8	.....	.....	.....	.....	.....	.....	.....

nfirmary, 27. Among Out-door Paupers, 412.

RURAL SANITARY DISTRICT OF WESTBOURNE.

POPULATION, 7221 in 1871; 7420 in 1881. AREA IN ACRES. 32,040 No. OF HOUSES, 1,495 in 1871; 1,533 in 1881.

During the year 1883 the births of 215 children and the deaths of 120 persons were registered; of the births 110 were male and 105 were female; of the deaths 59 were male and 61 were female.

There were 12 deaths in Westbourne Workhouse, and these have been distributed among the several parishes whence each inmate came, viz., East Marden 1, Stoughton 1, Compton 3, Funtington 2, Westbourne 5, in all 12.

In each parish the deaths were as follows:—West Dean 10, East Marden 4, North Marden 1, Up Marden 2, Stoughton 9, Compton 8, Racton 1, Funtington 18, Bosham 24, Chidham 3, West Thorney 0, Westbourne 40, in all 120.

The births and deaths in the whole of the district during the past four years have been as follows:—

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1880 ..	231	31·3	120	16·2
1881 ..	212	28·5	91	12·2
1882 ..	213	28·6	118	15·8
1883 ..	215	28·7	120	16·0

POPULATION.—The population in this district contains rather more males than females.

The distribution of the population at various groups of ages is here shown:—

	Under 1 year.	1-5	5-15	15-25	25-60	60 years and upwards.	Total.
Male....	116	406	892	631	1293	404	3742
Female...	112	418	867	556	1345	380	3678

During the past four years there have been 871 births and 449 deaths; the natural increase of population during this period by excess of births over deaths was, therefore, 422. The estimated increase of the population during the same period is only 110, so that there must have been a considerable migration into other districts. In the parishes of Up Marden, Chidham, and West Thorney, there has been a slight decrease, while in the other parishes the population has increased during the last decade.

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	31	26	57	13	12	25
2nd	„	28	24	52	21	19	40
3rd	„	21	34	55	14	9	23
4th	„	30	21	51	11	21	32
Total ..		110	105	215	59	61	120

The births appear to be most numerous in the first quarter of the year :—

		1881.	1882.	1883.	Total.	Mean
1st Quarter	..	52	67	57	176	59
2nd	„	58	42	52	152	51
3rd	„	55	54	55	164	54
4th	„	47	50	51	148	49
Total ..		212	213	215	640	213

The following table shows the birth-rate in different localities during the past three years ; in each case it is very low :—

	1881.	1882.	1883.	Mean
Funtington Parish.....	24·3	31·2	17·6	24·4
Bosham „	30·5	35·2	34·9	33·5
Westbourne „	29·4	28·0	30·3	29·2
Rest of District	28·6	24·8	28·9	27·4
Total	28·5	28·6	28·7	28·6

The *birth-rate* in 1883 throughout England and Wales was equal to 33·2 per 1000 persons estimated to be living in the middle of the year ; it showed according to the Registrar-General a further slight decline from the steadily decreasing rates in the six preceding years, and it was lower than that recorded in any year since 1849, when it was so low as 32·9.

The deaths at different groups of ages in each quarter are here shown :—

		Under one year.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Total.
1st Quarter	..	6	2	2	3	—	12	25
2nd	„	6	3	5	1	9	16	40
3rd	„	6	1	—	1	9	6	23
4th	„	3	6	—	2	8	13	32
Total ..		21	12	7	7	26	47	120

An examination of Table I will show that about one-sixth die under one year of age, while more than two-fifths are sixty years of age and upwards. A comparative statement of the deaths in each quarter during the past three years shows that the deaths are most numerous in the second and fourth quarters of the year :—

				1881.	1882.	1883.	Total.	Mean.
1st Quarter	..	..	..	32	19	25	76	25
2nd	„	..	..	29	31	40	100	33
3rd	„	..	..	17	23	23	63	21
4th	„	..	..	13	45	32	90	30
Total				91	118	120	329	109

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under 1 year.	Ratio to 1000 Births.
Funtington Parish	20	1	50
Bosham „	44	7	159
Westbourne „	75	7	93
Rest of District	76	6	79
Total....	215	21	97

The rate of infant mortality throughout England and Wales was equal to 137 per 1,000, against 130 and 141 in the two preceding years.

The following table shows the rate of infant mortality during the past three years in different localities :—

	1881.	1882.	1883.	Mean.
Funtington Parish	111	114	50	92
Bosham „	79	45	159	94
Westbourne „	55	173	93	107
Rest of District	40	92	79	70
Total....	61	112	97	90

The 21 *infantile* deaths included one from whooping-cough, two from diarrhœa, three from convulsions, four from lung diseases, two from enteritis, three from debility, five from premature birth, and one was not certified.

The deaths from *zymotic*, or catching disorders, were seven in number, against four and 18 in the two preceding years.

These seven deaths included three from diphtheria, one from whooping-cough, one from enteric fever, and two from diarrhœa.

The rate of mortality from these diseases was 0·9 per 1000 persons living, against a rate of 0·5 and 2·4 in the two preceding years. In the past three years there have been altogether 29 deaths in this class, or a mean annual rate of 1·2 per 1000.

There was no epidemic prevalence of any disease during the year, nor were there any cases which call for special remark.

There were no places in which any works of water-supply or drainage were carried out. The chief work of the year consisted in removing ordinary nuisances, in whitewashing dirty cottages, in keeping animals in a cleanly state, and in carrying out the earth-system, where possible, for the dealing with excreta.

Inquests were held in two cases:—Male, two years, accidental death from swallowing a quantity of soap liniment and laudanum; female, 42 years, suicide by drowning whilst insane.

There were six deaths returned as “not certified,” out of a total of 120 deaths:—Female, 66 years, probably heart disease; female, 52 years, probably fits; female, 74 years, natural causes; male, 84 years, natural causes; female, 11 months, probably infantile convulsions; female, 1½ years, probably natural causes.

There were five deaths of children born out of wedlock, out of a total of 215 births, and in each case the death was certified:—Female, 36 hours, inviability; female, 36 hours, inviability; male, six months, hereditary syphilis, disease of lungs; female, 2 months, diarrhœa; female, 13 months, cutaneous disease, congestion of the kidneys.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

There was no case during the year in which it was found necessary to condemn meat or any other article of food which had been exposed for sale.

The bakehouses and slaughterhouses have been inspected at intervals, and they have been kept in a cleanly state.

There is no common lodging-house in the district.

No proceedings were taken before the Bench during the year

WESTBOURNE RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 3 years, 1881-83.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over
1881	91	13	5	3	2	19	49
1882	118	24	12	8	4	24	46
1883	120	21	12	7	7	26	47
Total	329	58	29	18	13	69	142
In 1000 Deaths.....	1000	176	90	54	39	210	431

TABLE 2.—Showing the Deaths and Death-rate in each of the 3 years 1881-83, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid.	Other.							
1881...	1	..	..	..	..	..	..	2	..	1	4	0.5
1882..	...	1	1	8	4	..	1	..	1	..	1	1	..	18	2.4
1883...	3	1	..	1	..	2	..	...	..	..	7	0.9
Total.	—	1	1	12	5	—	2	—	3	—	3	1	1	29	1.2

WESTBOURNE RURAL SANITARY DISTRICT

TABLE 3.—Showing the Deaths and Death-rate from all causes

PARISH.	Population in the middle of the period.	Mean annual death-rate per 1,000, all ages.	Deaths from all causes in		
			1881.	1882.	1883.
West Dean	732	12·7	10	8	10
East Marden	92	25·3	1	2	4
North Marden	40	16·6	1	—	1
Up Marden	340	10·2	4	5	2
Stoughton	630	13·7	9	8	9
Compton	290	14·9	—	5	8
Racton	97	10·3	1	1	1
Funtington	1120	14·2	9	21	18
Bosham	1250	18·1	21	23	24
Chidham	269	16·1	5	5	3
West Thorney	130	0·0	—	—	—
Westbourne	2460	14·9	30	40	40
Total	7450	14·7	91	118	120

DISTRICT, 1881-83.

from various causes in each Parish in the three years 1881—83.

Total deaths in the three years.	Mean annual num- ber of deaths.	Total deaths in three years from			Mean annual death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease.	Zymotic Disease.	Phthisis.	Lung Disease.
28	9·3	4	2	3	182	91	136
7	2·3	—	—	1	—	—	362
2	0·7	—	—	—	—	—	—
11	3·7	1	2	3	98	196	294
26	3·7	2	2	5	105	105	264
13	4·3	1	1	5	115	115	574
3	1·0	1	—	1	343	—	343
48	16·0	9	1	8	267	29	237
68	22·7	4	5	7	106	133	186
13	4·3	2	2	—	210	210	—
—	0·0	—	—	—	—	—	—
110	36·7	5	13	20	68	176	271
329	109·7	29	28	53	129	125	237

WESTBOURNE RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 3 years, 1881-83.

PARISH.	Population in 1883.	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Continued Fevers.			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.
West Dean.....	735	..	..	..	..	1	..	..	..	1	..	2	..	..	4
East Marden	92	..	..	..	..	..	..	..	..	..	..	..	..	..	—
North Marden	40	..	..	..	1	..	..	..	..	..	..	..	..	..	—
Up Marden	340	..	..	..	2	..	..	..	..	..	..	..	..	..	1
Stoughton	630	..	..	..	1	..	..	..	..	..	..	..	..	..	2
Compton	290	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Racton	98	..	..	..	7	..	..	..	..	1	..	..	..	..	1
Funtington	1130	..	..	..	1	1	..	..	..	..	..	1	..	..	9
Bosham	1260	..	..	..	..	2	..	..	1	1	..	..	..	..	4
Chidham.....	270	..	..	1	..	..	..	1	..	..	..	..	..	..	2
West 'Thorn y	130	..	1	..	..	..	..	..	..	..	..	..	1	..	—
Westbourne	2475	..	..	..	..	1	..	1	..	..	..	..	..	1	5
Whole District	7490	—	1	1	12	5	—	2	—	3	—	3	1	1	29

WESTBOURNE RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 3 years 1881—83.

LOCALITY.	Deaths during the 3 years 1881—83, from						Annual Death rate per 100,000 living from				
	Population in middle of period.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Funtington Parish	1120	48	9	1	8	2	1428	267	29	237	59
Bosham Parish	1250	68	4	5	7	10	1813	106	133	186	266
Westbourne Parish	2460	110	5	13	20	12	1490	68	176	271	162
Rest of District	2620	103	11	9	18	9	1310	140	114	229	114
Whole District	7450	329	29	28	53	33	1472	129	125	237	147
In 1881	7418	91	4	7	15	11	1226	54	94	202	148
In 1882	7450	118	18	11	18	13	1583	241	147	241	174
In 1883	7490	120	7	10	20	9	1602	93	134	268	120

TABLE A.—Showing the Deaths during the year 1883, in the Rural Districts, and also the Population of such Localities.

[illegible]

TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the
District of WESTBOURNE clas.

NAMES OF LOCALITIES. 1	NEW CASES OF SICKNESS, IN PERSONS BELONGING TO THE DISTRICT OF WESTBOURNE						
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough.
	12	13	14	15	16	17	18
Funtington Parish	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
Bosham Parish	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
Westbourne Parish	Under 5 5 upwds.	.....	.....	1.....	.....	.....	.....
Rest of District	Under 5 5 upwds.	.....	.....	.....	2 .....	.....	3
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 5 upwds.	.....	.....	.....	.....	.....	.....
Totals.....	Under 5 5 upwds.	.....	.....	1	2 .....	.....	3

SOURCES OF INFORMATION :—In Workhouse and Workhouse

Medical Officer of Health, during the year 1883, in the Rural Sanitary
according to Localities and Diseases.

THE DISTRICT DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS AGE.								
ERS.	Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever.	Erysipelas	Pyæmia	Puerperal Fever	Ague
21	22	23	24	25	26	27		
.....
1	.....	.....	.....	.....	1	.....	.....	.....
1	2	.....	.....	.....	.....	.....	.....	.....
2	2	.....	.....	4	.....	.....	.....	.....
1	1	.....	.....	.....	.....	.....	.....	.....
3	1	.....	.....	.....	.....	.....	.....	.....
.....
.....
.....
.....
.....
.....
.....
2	3	.....	.....	.....	.....	.....	.....	.....
6	3	.....	.....	5	.....	.....	.....	.....

Other Diseases, such as
Chicken Pox, or Pneu-
monia, which the Medi-
cal Officer of Health
thinks well to record.

January, 20. Among Out-door Paupers, 258.

URBAN SANITARY DISTRICT OF WORTHING.

POPULATION, 7401 in 1871; 10,976 in 1881. Area in acres, 979.

Number of houses, 1,331 in 1871; 1,959 in 1881.

During the year 1883 the births of 313 children and the deaths of 164 persons were registered; of the births 162 were male, and 151 were female; of the deaths 79 were male, and 85 were female.

There were two deaths in the East Preston Workhouse of persons belonging to this district, and there were also 13 deaths among visitors, all of which are included in the above number of 164.

During the past nine years 139 visitors have died in this district, and of this number 14 have died of zymotic disease, 22 of consumption, 18 of lung diseases, 14 of heart disease, and 71 from other causes.

POPULATION.—The town rapidly increased in size between 1881 and 1883, so that there is a marked increase in the population since the last census. The rate-books show that in the middle of 1883 there were 2215 inhabited houses, as against 1959 in April, 1881, when there were 5·6 persons to each house. Assuming that there are now 5·5 persons to each house, the population is estimated at 12180 in the middle of 1883, so that the birth-rate was equal to 25·7 per 1000, and the death-rate was equal to 13·4 per 1000; excluding visitors, the death-rate was 12·4 per 1000 persons living.

Although in the rural parts of Sussex there are more males than females, yet at Worthing, as in many other towns, the opposite is the case, and the females are largely in excess of the males. Out of 10976 persons at the last census, 4701 were male, and 6275 were female, and the distribution at different groups of ages was as follows:—

	Under 1 year.	1 to 5	5 to 15	15 to 25	25 to 60	60 & upwards.	Total.
M.	159	518	1245	847	1563	369	4701
F.	140	522	1233	1348	2415	587	6275
Total ..	299	1070	2478	2195	3978	956	10976

Up to 15 years of age the numbers are very nearly equal, but after that period there is a great excess of females. This excess

seems due to the fact that young men seek employment elsewhere, whilst women come in to engage in domestic service, to let lodgings, or to retire at the close of life.

The effect of this excess is slightly to lower the death-rate, since the mortality of women is lower than that of men; but this advantage is neutralized by an excess of people at more advanced life who come here when they have retired from active work, and amongst whom the mortality is higher than amongst those at younger periods of life.

Throughout England and Wales the birth-rate during the past year was equal to 33·2 per 1000; this showed a further slight decline from the steadily decreasing rates in the six preceding years, and it was lower than in any year since 1849, when it was so low as 32·9.

The death-rate throughout England and Wales in the year 1883 was 19·5 per 1000 persons living; it was 0·1 below the rate that prevailed in 1882, and, with the exception of 1881, the rate was lower than that recorded in any year since civil registration came into operation in 1837.

In the chief towns the rate of mortality was 20·8, while in small towns and country parishes the rate was 17·7 per 1000.

In the nine years 1875–83 there were 2578 births and 1485 deaths, so that the natural increase of population by excess of births over deaths was 1093. The estimated increase is 3580, so that there has been a considerable migration into Worthing from other districts.

It will be noticed that though there is an excessive female population yet the birth-rate is low; this arises from the fact that so many women are engaged in domestic service, in letting lodgings, &c., and they are for the most part, therefore, unmarried or widows.

The births and deaths for the past nine years are here shown:—

Year.	Births.	Birth-rate.	Deaths.		Death-rate.	
			Including Visitors.	Excluding Visitors.	Including Visitors.	Excluding Visitors.
1875	240	27·2	164	143	18·6	16·2
1876	258	28·5	178	163	19·6	18·0
1877	250	26·7	160	146	17·1	15·6
1878	265	27·1	168	150	17·2	15·3
1879	287	28·1	153	146	15·0	14·3
1880	286	26·8	168	155	15·7	14·5
1881	324	29·2	170	150	15·3	13·5
1882	355	30·7	160	142	13·8	12·3
1883	313	25·7	164	151	13·4	12·4

In each quarter the births and deaths were as follows:—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	47	38	85	23	24	47
2nd	„	38	35	73	18	31	49
3rd	„	40	45	85	22	15	37
4th	„	37	33	70	16	15	31
Total ..		162	151	313	79	85	164

A comparison of the births in each quarter during the past five years shows that the numbers are very nearly equal:—

		1879-81.	1882.	1883.	Total.	Mean
1st Quarter	..	204	105	85	394	79
2nd	„	245	78	73	396	79
3rd	„	212	89	85	386	77
4th	„	236	83	70	389	78
Total ..		897	355	313	1565	313

The deaths at different groups of ages in each quarter were as follows:—

		Under one year.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Total.
1st Quarter	..	10	4	1	—	17	15	47
2nd	„	10	9	3	4	12	11	49
3rd	„	7	4	—	3	12	11	37
4th	„	6	5	—	1	10	9	31
Total ..		33	22	4	8	51	46	164

On examining Table I. it will be seen that nearly one-fifth die under one year of age, while more than one-third die aged sixty years and upwards.

Taking the average of the past nine years, it will appear that the deaths are most numerous in the first, and least numerous in the last quarter of the year:—

		1875-80.	1881.	1882.	1883.	Total	Mean.
1st Quarter	.....	269	46	50	47	412	46
2nd	„	224	53	36	49	362	40
3rd	„	235	40	33	37	345	38
4th	„	263	31	41	31	366	41
Total		991	170	160	164	1485	165

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year:—

Year.	Births.	Deaths under 1 year.	Ratio to 1000 Births.
1875 ..	240	33	138
1876 ..	258	30	116
1877 ..	250	33	126
1878 ..	265	31	117
1879 ..	287	21	73
1880 ..	286	39	136
1881 ..	324	28	86
1882 ..	355	34	95
1883 ..	313	33	105
Mean	286	31	109

The 33 *infantile deaths* included one from diarrhœa, one from hydrocephalus, four from brain disease, seven from convulsions, seven from lung diseases, one from enteritis, nine from debility, two from premature birth and one was accidentally suffocated.

The rate of infant mortality throughout England and Wales was equal to 137 per 1000, against 130 and 141 in the two preceding years.

The deaths from *zymotic*, or catching disorders were 15 in number, against 16, 29, 19, 21, 9, 29, 10 and 18 in the eight preceding years.

The 15 deaths included 8 from measles, 1 from whooping-cough, 2 from enteric fever, 1 from diarrhœa and 3 from rheumatic fever.

The rate of mortality from these diseases was 1·2 per 1000 persons living against a rate of 1·8, 3·2, 2·0, 2·1, 0·8, 2·7, 0·9 and 1·5 in the eight preceding years.

In the past nine years there have been altogether 166 deaths from this class of disorders, or a mean annual rate of 1·8 per 1000.

Measles was a very prevalent disorder during the summer months, but there is no record obtainable of the number of children attacked, and in fact many of the cases were so mild that no medical attendance was required. All the fatal cases were amongst children from one to six years of age, three of them being among males and five among females. This disease stands fifth in order of prevalence amongst zymotic disorders in West Sussex; whooping-cough, diarrhœa, diphtheria and scarlatina being more common disorders.

In the whole combined district there have been 101 deaths from measles during the past eight years, or an average of rather more than twelve a year in a population of 100,000.

Measles differs from diarrhoea and whooping-cough in being most frequent during the second year of life, while diphtheria and scarlatina are most common in children between the ages of four and ten. Measles seldom proves fatal without there being convulsions or some form of lung disease, as pneumonia and bronchitis.

It was last year most prevalent in fine and warm weather, there being one fatal case at the end of March, one at the end of May, four in June, one in July, and one in August. Out of 21 deaths from this cause in West Sussex in 1883, only one death took place in March, none in April, 1 in May, 10 in June, 2 in July, 5 in August, 1 in September, 1 in October, and none in the cold winter months.

In 1882 there were 7 deaths in the second quarter and 9 in the third quarter, but there were none in the first and last quarters of the year. In 1881 there was but one death during the year and this occurred in April, so that it would appear that in West Sussex, at least, warm weather has a more unfavourable influence than cold weather.

Enteric fever caused two deaths, but in one the nature of the disease was doubtful, and there was no sanitary defect in the house to account for the illness. In the other case there was defective drainage, and the disease seemed to arise from bad local conditions.

When the house was first built the drain ran outside the building, but when alterations were made the house was enlarged and a sitting-room was built over the drain. At different times a smell of sewer-gas was noticed in the sitting-room, and when the drain became partly blocked the occupier of the house fell ill with enteric fever. There were no other cases of illness in the house, and the drain was taken up and placed outside.

With these exceptions, the town was in a very healthy state during the year, and there was no outbreak of any other disorder which calls for special remark.

WATER SUPPLY.—In my last report it was shown that the consumption of water in the town had been reduced to 27 gallons per head per day, as against 35 gallons at the commencement of the year.

The Town Surveyor, Mr. Horne, again paid much attention to this continued waste, and the following is his report of the condition of things in the month of October.

“ I have to report that during the last two months the waste of water in the town has been considerably on the increase, so much so that it has been with the greatest difficulty at times to keep the mains charged; consequently I decided to divide the town into districts and make an examination of the

sewers during the night, first with the water turned off entirely, and then with the full pressure of 30lb. to the square inch on the water mains; my principal object in the first of such examinations being to ascertain the exact condition of the sewers at the several points examined, and the second to arrive at the quantity of water flowing in the sewers during the night (which must be wasted) and to ascertain the source of such waste. I made the first of these examinations on the night of the 22nd October and the morning of the 23rd, and the district taken was that portion of the town which lies west of South Street and Chapel Road and south of Richmond Road, and the second examination I made on the night of the 30th October and the morning of the 31st, with the following results, viz.:—

1ST INSPECTION.

WATER OFF.

Manhole in High Street,
1½in. clear water. Brighton
Road branch dry.

Manhole in South Place,
2in. water stagnaat.

Manhole in South Street,
could not get cover off.

Manhole in Montague Street,
could not get cover off.

Manhole in Montague Street,
2½in water.

Manhole in Montague Street,
opposite Buckingham Road,
4½in. water stagnant,

Manhole in Montague Street,
opposite Back of Chapel Street,
2in. water stagnant.

Montague Street, opposite
Crescent Road, 4½in. water
stagnant.

Montague Street, opposite
Gratwicke Road, 3¾in water
stagnant.

2ND INSPECTION.

WATER ON.

4in. water running freely.
Water running down side of
manhole through brickwork,
probably from a leaky water-
main.

4½in. water running freely.

4in. water running freely.

4½in. water running freely.
Several branch drains perfectly
dry.

Could not get cover off.

3in. water running freely,
and a good flow from Bucking-
ham Road branch.

3in. water running freely,
and water flowing from Back
of Chapel Street sufficient to
fill a 2in. pipe.

5in. flowing freely, and a
large flow from Crescent Road
branch.

3¾in. water flowing fast
from Gratwicke Road branch.

“I guaged the quantity of water which passed from the tank at the waterworks, between 1.15 a.m. and 3.15 a.m., while the

above (second) test was being made, and found the same to be 20,000 gallons.

“I have instructed the water inspector to make a careful inspection of all the fittings in the district, part of which is now done, and the remainder is now in hand, with the following results, vix.:—

Back of Chapel Street,	7	closets were running to waste.
Chapel Street (east side)	6	„ „
Gloucester Place	6	„ „
West Street	5	„ „
Eriswell Road	4	„ „
Clarendon Place	5	„ „
West Buildings	4	„ „

“I have reported these matters to the Water Supply Committee, and urged upon them the necessity of taking some steps to stop the great waste which exists through the cottage valves attached to most of the water closets in the town, and recommended that such a source of supply to w.c.’s ought to be entirely abolished, and I am of opinion that until this is done the greatest difficulty will be experienced in maintaining anything like an adequate supply for the inhabitants. The committee have now the matter under consideration.

“I made an inspection of all the manholes, with the pressure on the mains, between 1 a.m. and 3 a.m. on the morning of Nov. 3rd, when the result was found to be similar to the above.”

The regulations in connection with water supply which are now adopted by the Local Board materially assisted in checking the great waste of water which has been going on for years. In a town which has no manufactories, and in which sea-water can be used for the roads, an average daily consumption of twenty gallons a head would be quite sufficient. Many persons allow water to run away constantly so as to flush the house drains, but this is a mistake, as drains are only properly flushed by sending down a quantity of water in a very short time, as is the case when two-gallon cisterns are supplied. The mere dribble of water from half-an-inch pipe all day long is of very little service, and it causes a great loss. Each closet should be provided with a small cistern whereby at least two gallons of water can be discharged rapidly, this giving a good flush. In this way, there is the great advantage of not having the water supply in direct communication with any drain or closet. In this district where the supply is constant the water for drinking purposes is drawn direct from the main, and in all new houses the closets have separate cisterns, so that any pollution of drinking water is avoided. Pollution is further prevented by making every overflow pipe end in the open air, where it also acts as a warning pipe, and prevents waste.

At the close of the year Mr. Horne made careful observations of the actual quantity drawn from the tank during twenty-four hours with the engines stopped in a precisely similar manner, and with the same pressure during each hour as in the experiments made in 1881, and the results are here contrasted:—

6 a.m. to 6 p.m.	1881 Test. Gallons Per hour	1883 Test. Gallons Per hour	Pressure lbs.	6 p.m. to 6 a.m.	1881 Test. Gallons Per hour	1883 Test. Gallons Per hour	Pressure lbs.
6—7	14000	7000	15	6—7	18000	8000	15
7—8	16000	9000	15	7—8	17000	11000	15
8—9	18000	11000	15	8—9	10000	9000	15
9—10	25000	23000	20	9—10	16000	9000	15
10—11	20000	13000	15	10—11	15000	8000	15
11—12	19000	18000	15	11—12	11000	6000	10
12—1	19000	16500	15	12—1	16000	5000	10
1—2	18000	14500	15	1—2	11000	6000	10
2—3	20000	13000	15	2—3	10000	5000	10
3—4	19000	13000	15	3—4	9000	5000	10
4—5	23000	10000	15	4—5	9000	5000	10
5—6	17000	11000	15	5—6	15000	11000	30
Total	228000	159000			157000	88000	

There was a saving in the day consumption of 69,000 gallons, and also of a similar quantity during the night, or a total decrease of 138,000 gallons per day. In 1881 the consumption was at the rate of 35 gallons per head per day, while at the end

of 1883 it was at the rate of about 21 gallons per head per day, showing a saving through the stoppage of waste of 14 gallons per head per day. Mr. Horne has obtained these results of numerous night inspections by enforcing the water regulations, and by insisting on better materials and fittings being used. The saving to the town in pumping alone is very considerable.

In the summer of 1883, when there seemed a probability of cholera appearing in this country, I advised the Local Board to have an analysis made of the town water by Dr. Dupré, F.R.S., and the following is a copy of his very satisfactory report:—

“The water is clear and colourless, and free from taste or smell. It is somewhat hard, but becomes fairly soft on boiling. The amount of chlorine and nitric acid is somewhat high, but not more so than is frequently found in unpolluted deep well water. The very small amount of oxygen absorbed conclusively proves that the water is unpolluted. It is in every respect very suitable for drinking purposes.

Appearance	..	..	..	Clear.
Colour	..	..	..	Colourless.
Taste	..	..	..	None.
Smell	..	..	..	None.
Deposit	..	..	..	None.
Nitrous acid	..	..	..	None.
Phosphoric acid	..	..	..	None.
Poisonous metals	..	..	..	None.
Hardness before boiling	..	..	..	17·5 degrees Clark.
„ after „	..	..	..	4·5 „
				Grains per Gallon.
Oxygen absorbed from permanganate	..			·008
Total dry residue	{ Volatile matter		1·96	
	{ Fixed salts		26·60	
			—————	28·56
Chlorine	..	..	..	3·36
Nitric acid	..	..	..	1·87
Ammonia	..	..	..	·0007
Albuminoid ammonia	..	..	..	·0040 ”

The Local Board came to no decision during the year with regard to watering the streets with sea-water by means of Shone's system.

DRAINAGE AND SEWAGE.—The main sewers have been well flushed at intervals during the year, and this was more especially done during dry and hot weather. The main sewers are well ventilated, so that it is rare to find any complaints of the escape of sewer gas from any manholes in the street. The large sewer in the Brighton Road has been furnished with a flushing-valve, whereby it can now be thoroughly emptied and cleansed. Most

of the main drains and sewers are in very good condition. The sewer in Montague Street still seems to be defective, apparently owing to its being laid without sufficient fall, so that the contents do not properly flow away, and the side drains running into it are therefore in a foul condition at times. It seems that no good will be done unless the whole of Montague Street be taken up and re-laid.

RAINFALL.--The rainfall during each month of the past year was as follows:—

Month.	Rainfall in inches.	No. of rainy days.	Rainfall in 1882.
January	2·50	22	1·48
February	3·55	19	1·60
March	0·70	11	1·06
April	1·54	7	2·69
May	2·39	11	1·15
June	1·11	12	2·41
July	2·92	13	2·44
August	0·83	12	2·03
September	4·06	17	2·45
October	2·85	12	8·58
November	4·62	20	3·83
December	1·03	14	2·98
Total	28·10	170	32·70

The rain-guage is 1ft. above the ground and 24·6ft. above sea level; diameter of funnel, 5 inches.

Inquests were held in eight cases:—Female, 33 years, manslaughter; male, 30 years, accidentally drowned; male, 58 years, accidental fall; male, 45 years, accidental fall from horse; male, 10 days, accidentally suffocated; female, 54, suicide by throwing herself out of a window whilst insane; male, 14 years, drowned; male, 54, suicide by taking carbolic acid whilst insane.

There were six deaths returned as “not certified,” out of a total of 164:—Male, six months, pleurisy; male, 39 years, heart disease; female, seven months, teething, convulsions; male, 16 months, measles; female, 73 years, inanition; female, 53 years, heart disease.

There were three deaths of children born out of wedlock, out of a total of 313 births:—Male, six months, pleurisy, not certified; female, three weeks, atrophy, certified; female, one year, marasmus, certified.

In the Worthing Infirmary there were 63 in-patients during year, against 27, 34, 30, 42, 42, 49, 55, and 52 in the eight preceding years. Of the 63 in-patients 41 belonged to this district, six to Steyning, four to Thakeham, and twelve to East Preston districts.

There were also 1277 out-patients against 1021, 1073, 1002, 1074, 1065, 1080, 1075, and 1221 in the eight preceding years.

Among the 1277 out-patients 943 belonged to this district, 54 to Steyning, 32 to Thakeham, 243 to East Preston, and 5 to Littlehampton districts.

A few cases of overcrowding were abated during the year.

There are two registered common lodging-houses in this district, and they are well kept.

The slaughterhouses and bakehouses have been inspected at intervals, and they have been kept in a cleanly state.

On Nov. 27th two barrels of sprats were found to be in a putrid condition, and quite unfit for human food. They were at once condemned and buried. These sprats had been sent from Portsmouth on Nov. 26th to a hawker at Worthing, and he had sold them to another man, who gave information about their unfit state for food. No proceedings were taken before the magistrates, as the sprats were not exposed for sale.

There were 142 new cases of sickness amongst paupers, against 243, 347, 194, 199, 141, 251, 214, and 188 in the eight preceding years.

The following Table shows the changes that have taken place in the death-rate in this district during a period of thirty years :—

Per 100,000 persons living.	1843—52	1853—56	1857—63	1875—83.	
	BEFORE	DURING	AFTER	including	excl ding
	execution of sanitary works.			visitors.	visitors
General Death-rate	1550	1630	1530	1622	1469
Zymotic ,,	292	280	328	183	166
Phthisis ,,	305	282	195	174	149
Lung disease ,,	147	185	185	197	177

WORTHING URBAN SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 9 years, 1875-83.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over
1875	164	33	17	3	10	41	60
1876	178	30	25	15	5	47	56
1877	160	33	15	8	6	42	56
1878	168	31	13	2	8	49	65
1879	153	21	13	2	8	39	70
1880	168	39	18	12	9	41	49
1881	170	28	15	8	7	49	63
1882	160	34	14	3	7	41	61
1883	164	33	22	4	8	51	46
Total	1485	282	152	57	68	400	526
In 1000 Deaths.....	1000	190	102	38	46	270	354

TABLE 2.—Showing the Deaths and Death-rate in each of the 9 years 1875-83, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Total.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid.	Other.							
1875...	..	1	..	..	..	1	..	3	10	..	1	..	..	16	1.8
1876...	..	4	16	2	1	..	..	..	5	..	..	..	1	29	3.2
1877...	2	2	1	..	..	1	9	2	..	..	2	19	2.0
1878...	15	..	..	..	5	..	..	1	..	21	2.1
1879...	..	5	..	1	2	..	..	..	..	..	1	..	..	9	0.8
1880...	..	4	1	2	6	..	7	..	9	..	..	..	..	29	2.7
1881...	4	1	..	..	1	..	2	2	..	..	..	10	0.9
1882...	1	1	7	..	1	..	7	..	..	..	1	18	1.5
1883...	..	8	..	..	1	..	2	..	1	3	..	..	..	15	1.2
Total.	—	22	24	9	33	1	11	4	48	7	2	1	4	166	1.8

WORTHING URBAN SANITARY DISTRICT.

TABLE 3.—Showing the Deaths and Death-rate from all causes and from various causes in the 9 years 1875—83.

YEAR.	Deaths during the 9 years from						Annual Death rate per 100,000 living from				
	Population in middle of period.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Including visitors.											
1875	8800	164	16	19	26	14	1863	181	215	295	159
1876	9050	178	29	21	15	9	1966	320	232	165	99
1877	9350	160	19	15	10	24	1711	203	160	106	256
1878	9750	168	21	19	26	13	1723	215	194	266	133
1879	10200	153	9	18	21	18	1500	88	176	205	176
1880	10680	168	29	17	21	13	1573	271	159	196	121
1881	11100	170	10	11	23	20	1531	90	99	207	180
1882	11550	160	18	17	21	19	1385	155	147	181	164
1883	12180	164	15	23	19	15	1346	123	188	156	123
Total.....	.....	1485	166	160	182	145	1622	183	174	197	156
Excluding visitors.											
1875		143	11	16	23	12	1625	125	181	261	136
1876		163	27	16	12	9	1801	298	176	132	98
1877		146	17	13	10	20	1561	181	139	107	213
1878		150	20	15	23	13	1538	205	153	235	133
1879		146	8	18	20	18	1431	78	176	196	176
1880		155	27	15	20	11	1451	252	140	186	103
1881		150	10	9	22	20	1351	90	81	198	180
1882		142	18	15	16	16	1229	155	130	138	138
1883		151	14	21	18	12	1239	115	172	147	97
Total.....		1346	152	138	164	131	1469	166	149	177	141

TABLE A.—Showing the Deaths during the year 1883, in the Urban Sanitary District, and showing also the Population of the same.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	Census 1881	Estimated to middle of 1883.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
WORTHING URBAN SANITARY DISTRICT.	10976	12180	313	162	33	22	4	8	51	44	Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
TOTALS ..	10976	12180	313	162	33	22	4	8	51	44	Under 5. 5 upwds
Deaths occurring outside the district among persons belonging thereto				2						2	Under 5. 5 upwds
Deaths occurring within the district among persons not belonging thereto				13	—	2	1	3	4	3	Under 5. 5 upwds

istrict of WORTHING, classified according to Diseases, Ages, and Localities,
alities and the Births therein during the year.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

[illegible]

TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the District of WORTHING class

NAMES OF LOCALITIES. 1	NEW CASES OF SICKNESS, IN PERSONS BELONGING TO THE DISTRICT OF WORTHING CLASS						
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough.
	12	13	14	15	16	17	18
Worthing Urban Sanitary District.	Under 5		4				
	5 upwds.		13				
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
Totals.....	Under 5		4				
	5 upwds.		13				

SOURCES OF INFORMATION :—In Workhouse and Workhouse Infirmary As Out-patient

the Medical Officer of Health, during the year 1883, in the Urban Sanitary according to Localities and Diseases.

TO THE DISTRICT DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE.									
FEVERS.									Other Diseases, such as Chicken Pox, or Pneumonia, which the Medical Officer of Health thinks well to record.
Enteric or Typhoid	Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever.	Erysipelas	Pyæmia	Puerperal Fever	Ague	
20	21	22	23	24	25	26	27		
4		5			1				
4		5			1				

Among Out-door Paupers, 120, As In-patients of Worthing Infirmary, 41.
Worthing Infirmary, 943,

URBAN SANITARY DISTRICT OF LITTLEHAMPTON.

POPULATION, 3,272 in 1871; 3,926 in 1881. AREA IN ACRES, 925; NO. OF HOUSES, 625 in 1871; 743 in 1881.

During the year 1883 the births of 111 children and the deaths of 55 persons were registered; of the births 57 were male and 54 were female; of the deaths 29 were male and 26 were female.

These 55 deaths include the deaths of five persons in the East Preston Workhouse, which is outside this district, and they also include the death of one visitor.

Estimating the population in the middle of the year at 4,000, the birth-rate was equal to 27·7, and the death-rate was equal to 13·7 per 1,000 persons living; excluding visitors, the death-rate was equal to 13·5 per 1,000 of population.

Throughout England and Wales the birth-rate during the past year was equal to 33·2, and the death-rate to 19·5 per 1,000 persons estimated to be living in the middle of the year. In small towns and country parishes the death-rate was 17·7 per 1,000 persons living.

The births and deaths for the past nine years are here shown:—

Year.	Births.	Birth-rate.	Deaths.		Death-rate.	
			Including Visitors.	Excluding Visitors.	Including Visitors.	Excluding Visitors.
1875	112	32·0	54	50	15·4	14·2
1876	104	29·2	52	49	14·6	13·7
1877	113	31·1	48	46	13·2	12·6
1878	114	30·9	60	58	16·2	15·7
1879	117	31·2	50	50	13·3	13·3
1880	109	28·6	51	45	13·3	11·8
1881	105	26·8	58	55	14·7	14·0
1882	94	23·6	74	66	18·5	16·5
1883	111	27·7	55	54	13·7	13·5

POPULATION.—The recent census returns show that there was an increase of 654 persons during the decade, and this followed upon an increase of 922 in the previous census period. The

males and females living at each period were as follows :—

		1861.		1871.		1881.
Male	...	1112	...	1571	...	1865
Female	...	1238	...	1701	...	2061
		<hr/>		<hr/>		<hr/>
Total	..	2350	...	3272	...	3926

It will be seen that the females are much in excess of the males. This is the general rule in towns, and it is the reverse of what is met with in the rural parts of Sussex.

The distribution of the population at different progress of ages at the census in 1881, was as follows :—

		Under one year.	1—5.	5—15.	15—25.	25—60	60 and upwards.	Total
Male	...	47	195	509	333	633	148	1865
Female...	51	201	453	403	760	193	2061	

In September, 1882, the London, Brighton, and South Coast Railway Company transferred their steamers to Newhaven. The result of this change was that many families left Littlehampton and Wick to go to Newhaven. Thus the increase in the number of the inhabitants hitherto observable between each census has not been maintained. The natural increase of population between 1881 and 1883, by the excess of births over deaths, was 85; the estimated increase is only 70, so that whatever loss has been sustained by the change of traffic has nearly been made up since.

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total	M.	F.	Total.
1st Quarter	..	17	19	36	10	6	16
2nd	„	8	13	21	7	7	14
3rd	„	16	14	30	5	10	15
4th	„	16	8	24	7	3	10
		<hr/>		<hr/>	<hr/>		<hr/>
Total	...	57	54	111	29	26	55

A comparative statement of the births in each quarter for a term of five years shows that they are most numerous in the first and third quarters of the year :—

		1879-81.	1882.	1883.	Total.	Mean.
1st Quarter	...	86	33	36	155	31
2nd	„	89	19	21	129	26
3rd	„	84	27	30	141	28
4th	„	72	15	24	111	22
		<hr/>		<hr/>	<hr/>	<hr/>
Total	..	331	94	111	536	107

The birth-rate during the last four years is considerably less than the rate which prevailed in the five previous years. In sea-side towns like this, the birth-rate is always low, owing to

the presence of several schools whereby there is an excess of young people, and to the number of unmarried women or widows engaged in letting lodgings, or employed in service.

The recent depression in trade has also had a lowering influence on the birth-rate.

The *birth-rate* in 1883 throughout England and Wales was equal to 32·2 per 1000 persons estimated to be living in the middle of the year; it showed according to the Registrar-General a further slight decline from the steadily decreasing rates in the six preceding years, and it was lower than that recorded in any year since 1849, when it was so low as 32·9.

The deaths at different groups of ages in each quarter are here shown:—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Total.
1st Quarter..	1	1	—	1	6	7	16
2nd „ ..	4	—	2	—	3	5	14
3rd „ ..	3	1	—	—	3	8	15
4th „ ..	3	—	—	—	3	4	10
	—	—	—	—	—	—	—
Total ..	11	2	2	1	15	24	55

A comparative statement of the deaths in each quarter during the past nine years shows that the deaths are most numerous in the first quarter, and least numerous in the last quarter, of the year:—

	1875—80.	1881.	1882.	1883.	Total.	Mean.
1st Quarter ..	103	16	32	16	167	18
2nd „ ..	70	15	10	14	109	12
3rd „ ..	79	12	20	15	126	14
4th „ ..	63	15	12	10	100	11
	—	—	—	—	—	—
	315	58	74	55	502	55

The *Infant* mortality is here given as measured by the number of deaths under one year of age to the total number of births in the year:—

Year.	Births.	Deaths under one year.	Ratio to 1000 births.
1875	112	4	36
1876	104	10	96
1877	113	9	79
1878	114	15	131
1879	117	6	51
1880	109	12	110
1881	105	11	104
1882	94	16	170
1883	111	11	99
	—	—	—
Total ..	979	94	96

The rate of infant mortality throughout England and Wales was equal to 137 per 1000 births against 130 and 141 in the two preceding years.

The eleven *infantile deaths* include one from diarrhoea, three from convulsions, four from lung disease, two from marasmus, and one from premature birth.

The deaths from *zymotic*, or catching disorders were 2 in number against 6, 8, 3, 5, 2, 3, 1 and 6 in the eight preceding years.

The two deaths in this class were from *diarrhoea*.

The rate of mortality from these diseases was 0·5 per 1000 persons living against a rate of 1·7, 2·2, 0·8, 1·3, 0·5, 0·7, 0·2 and 1·5 in the eight preceding years. In the past nine years there have been altogether 36 deaths from this class of disorders, or a mean annual rate of 1·0 per 1000. Throughout England and Wales the annual death-rate from the seven principal zymotic diseases alone was 2·20 per 1000, against 2·32 and 2·73 in 1881 and 1882.

The town was in a very healthy condition during the year. There were a few mild cases of *scarlatina*, but ordinary precautions were taken, and there was no spread.

Diphtheria appeared in one house at the end of July, and two adults were attacked, but they recovered. The parents, and two young children who were in the house, escaped. The cause seemed to be due to a sink-trap which was inside the house, and in direct connection with the sewer; this was remedied, and there was no more cases. There was a wash-out closet in the house, but this was in good condition; the soil-pipe was ventilated, and there was a 2-gallon cistern for flushing purposes.

A Local Government Board Inquiry was held at the Norfolk Hotel, on November 22nd, 1883, by S. H. Terry, Esq., in consequence of the Local Board having applied for sanction to borrow £250 for Works of Water Supply.

It appeared from the inquiry that the amount of assessable value came to £16,364, and that the Loans outstanding amounted to £16,423, not including the present proposed loan of £250.

In my 6th Report, pp. 72-75, it is shown that the cost of making the two wells and galleries came to £3,989 6s. 8d., and since then about £9,000 have been expended in a water-tower, pipes, mains, &c. Altogether, the sum of £13,722 has been taken up, of which £11,500 has been obtained on loan, and £2,222 has been received from the Duke of Norfolk. The cost of the water supply up to September, 1883, has been £13,954, so that there is a deficiency of £232.

It was proposed in 1879 to have one large tank, and a small

high tank for extra pressure. This idea was abandoned, and there is now only one large tank at the top of the water-tower which holds about 87,000 gallons.

The daily supply in the winter is from 18,000 to 20,000 gallons, but in summer time, when the town is full of visitors, and when the streets require watering, from 40,000 to 50,000 gallons are used. The system is constant, waste-preventer cisterns are in use, and there is no direct water supply to any closet or drain.

About 250 houses are now supplied, and the number is gradually increasing.

The following comparative statement shows the changes that have taken place during the last nine years divided into two periods; the chief difference lies in the diminution of the of the zymotic rate, as in other respects the rates are very nearly equal. During the latter half of the period the works for sewage and water supply have been completed, so that in future years it will serve for comparison.

In this summary the deaths of any visitors are included, and also the deaths of any persons in the East Preston Workhouse belonging to this district.

Per 100,000 Persons living.	1875-78.	1879-1883.
All ages, both sexes.		
General Death-rate ..	1488	1475
Zymotic „ ..	153	71
Phthisis „ ..	202	159
Lung Disease „ ..	237	213
	} 439	} 372
15 to 55 years,		
Phthisis Death-rate ..	{ 258 mean 248 female	{ 278 mean 200 female
Lung Disease „ ..	{ 68 mean 25 female	{ 79 mean 18 female
Under 1 year ..	10,550	11428
Under 5 years ..	3,324	3360

DRAINAGE AND SEWAGE.—The new sewer seems to act very well, but some complaints are made of sewer-gas escaping from the ventilators on the street level. This arises from imperfect flushing, and it will probably cease when water is laid on to

every house. In the meantime, extra flushing is carried on by means of a hose attached to a hydrant, or by the use of flushing valves, which are of great service in keeping the drains clear from deposit.

One death was returned as “not certified”:—male, 64 years probably heart disease.

Inquests were held in two cases:—Female, 6 weeks, natural causes, convulsions; male, 42 years, suicide by shooting, whilst insane.

There were no cases of overcrowding abated during the year.

There were no cases during the year in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals, and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

There is no common lodging-house in the district.

No proceedings were taken before the magistrates during the year.

CHOLERA PRECAUTIONS.—In consequence of a Circular Letter from the Local Government Board, dated July 12th, 1883, with reference to the precautions to be observed in the event of any case of cholera being imported into this country, arrangements were made with the Officer of Customs for detaining any ships so infected, and a position was provided where the vessel could be moored. No case, however, was imported. The Regulations provided that if any Officer of Customs, on the arrival of any ship, ascertain from the master, or have reason to suspect, that the ship is infected with cholera, he shall detain such ship and order the master forthwith to moor or anchor it in such position as the officer shall direct; that while the ship is so detained no person shall leave the same. Notice of this detention, and of the cause thereof, shall be at once made to the Sanitary Authority, and such detention shall cease as soon as the ship shall have been visited and examined by the Medical Officer of Health; or if the ship shall be found to be infected with cholera, as soon as the same shall be moored or anchored in pursuance of Article 10 of the Order.

The Order further provided that the Sanitary Authority should make provision for the reception of cholera patients and persons suffering from illness which may prove to be cholera, and that the Medical Officer of Health shall at once visit and examine the ship for the purpose of ascertaining whether she is infected with cholera. If he is of opinion, on making such medical examination, that the ship is infected, he shall give a certificate in duplicate to that effect, and he shall deliver one copy to the Master, and retain the other or transmit it to the Sanitary Authority. No person shall leave any such ship until a thorough examination shall have been made. Any person

found to be suffering from cholera shall be removed to some hospital or place previously appointed for that purpose, and no patient shall leave until the medical officer has certified that such person is free from the said disease. Any person suffering from any illness which may prove to be cholera, may be detained for a period not exceeding two days, in order that it may be ascertained whether the illness is or is not cholera. Other articles in the Order provided that steps shall be taken to prevent the spread of infection, and to destroy any articles of clothing, bedding, &c., which are likely to retain infection, or which have been used by any persons who may have suffered from cholera.

These regulations provided for a proper medical inspection of a ship and for detaining and treating those who were suffering or likely to suffer from the disease. Such inspection would replace the old and troublesome system of quarantine, which, on so many occasions, has been proved to cause great inconvenience, and which has turned out to be useless in practice.

One advantage arose from the fear of cholera invading this country in the fact that it gave a stimulus to cleanliness, and much care was taken in many places in seeing that the water-supply was good, that cisterns and tanks were cleared out, that the drains and sewers were well flushed, and that many minor nuisances were removed.

LITTLEHAMPTON URBAN SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 9 years, 1875-83.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over
1875	54	4	9	1	1	24	15
1876	52	10	7	4	6	13	12
1877	48	9	2	1	2	16	18
1878	60	15	5	7	1	14	18
1879	50	6	3	4	3	12	22
1880	51	12	7	3	2	13	14
1881	58	11	4	—	3	16	24
1882	74	16	11	2	3	18	24
1883	55	11	2	2	1	15	24
Total	502	94	50	24	22	141	171
In 1000 Deaths.....	1000	187	99	48	44	281	341

TABLE 2.—Showing the Deaths and Death-rate in each of the 9 years 1875-83, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric or Typhoid.	Other.							
1875...	::	::	1	3	::	::	::	1	1	::	::	::	::	6	1·7
1876...	::	::	3	::	1	::	::	1	3	::	1	::	::	8	2·2
1877...	::	::	1	1	::	::	::	::	::	1	::	::	::	3	0·8
1878...	::	::	3	::	::	::	::	::	1	::	::	::	1	5	1·3
1879...	::	::	::	2	::	::	::	::	::	::	::	::	::	2	0·5
1880...	::	2	::	::	::	::	::	::	1	::	::	::	::	3	0·7
1881...	::	1	::	::	::	::	::	::	::	::	::	::	::	1	0·2
1882...	::	2	::	::	3	::	1	::	::	::	::	::	::	6	1·5
1883...	::	::	::	::	::	::	::	::	2	::	::	::	::	2	0·5
Total	—	5	8	6	4	—	1	1	8	1	1	—	1	36	11·0

LITTLEHAMPTON URBAN SANITARY DISTRICT.

TABLE 3.—Showing the Deaths and Death-rate from all causes and from various causes in the 9 years 1875—83.

YEAR.	Deaths during the 9 years from						Annual Death rate per 100,000 living from				
	Population in middle of period.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Including visitors. 1875 1876 1877 1878 1879 1880 1881 1882 1883	3500	54	6	7	11	4	1542	171	200	314	114
	3560	52	8	6	8	2	1460	224	168	224	56
	3625	48	3	8	10	4	1324	82	220	275	110
	3688	60	5	8	5	3	1626	135	219	135	81
	3760	50	2	6	5	5	1333	53	159	130	130
	3830	51	3	8	6	4	1335	78	209	156	105
	3930	58	1	7	6	8	1475	25	178	152	204
	3980	74	6	5	16	4	1859	150	125	400	100
4000	55	2	5	9	3	1375	50	125	225	75	
Total.....	.....	502	36	60	76	37	1482	107	178	223	108
Excluding visitors. 1875 1876 1877 1878 1879 1880 1881 1882 1883		50	6	4	11	4	1428	171	114	314	114
		49	7	5	7	2	1376	196	140	196	56
		46	3	8	10	3	1268	82	220	275	82
		58	5	8	5	3	1572	135	219	135	81
		50	2	6	5	5	1333	53	159	130	130
		45	3	5	6	4	1180	78	130	156	105
		55	1	7	6	8	1400	25	178	152	204
		66	4	4	15	3	1658	100	100	375	75
1883	54	2	5	9	3	1350	50	125	225	75	
Total.....		473	33	52	74	35	1397	99	154	217	102

TABLE A.—Showing the Deaths during the year 1883, in the Urban Sanitary Localities, and showing also the Population.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	Census 1881	Estimated to middle of 1883.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
Littlehampton URBAN SANITARY DISTRICT.	3926	4000	111	50	11	2	2	1	12	22	Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
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istrict of LITTLEHAMPTON, classified according to Diseases, Ages, and such Localities and the Births therein during the year.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

[illegible]

TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the
District of LITTLEHAMPTON classified by Age and Sex.

NAMES OF LOCALITIES. 1	NEW CASES OF SICKNESS, IN PERSONS BELONGING TO THE DISTRICT OF LITTLEHAMPTON							Total
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough. 18	
Littlehampton Urban Sanitary District.	Under 5			1				
	5 upwds.			1				
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
Totals.....	Under 5			1				
	5 upwds.			1				

SOURCES OF INFORMATION :—In Workhouse and Workhouse Infirmary
As Out-patient

Medical Officer of Health, during the year 1883, in the Urban Sanitary District of London, relating to Localities and Diseases.

[illegible]

Out-door Paupers, 80. As In-patients of Worthing Infirmary, 0.
Worthing Infirmary, 5.

URBAN SANITARY DISTRICT OF WEST WORTHING.

POPULATION, 276 in 1871; 689 in 1881. AREA IN ACRES, 300; No. OF HOUSES, 40 in 1871; 98 in 1881.

During the year 1883 the births of 10 children and the deaths of 12 persons were registered; of the births 5 were male and 5 were female; of the deaths 8 were male and 4 were female.

Estimating the population in the middle of the year at 850, the birth-rate was equal to 11·7 per 1,000, and the death-rate was equal to 14·1 per 1,000 persons living.

The twelve deaths included two from enteric fever, two from heart disease, two from consumption, one from cancer, one from general paralysis, one from suicide, one from debility, one from premature birth, and one from liver disease.

The births and deaths for the past nine years are here shown:—

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1875	9	22·5	6	15·0
1876	2	4·4	4	8·8
1877	6	12·0	3	6·0
1878	8	14·5	1	1·8
1879	11	18·3	7	11·6
1880	13	20·0	5	7·7
1881	12	17·1	5	7·1
1882	12	15·8	10	13·1
1883	10	11·7	12	14·1

The mean birth-rate is 15·3, and the mean death-rate is 9·8 per 1,000 of population.

POPULATION.—The census returns show a large excess of females in the population, but this excess is only after fifteen years of age, as before that period of life there are more boys than girls, owing to there being a large school for boys in the district. The exceptional nature of the population may be shown by giving the numbers living at different groups of ages:—

	Under one year.	1—5.	5—15.	15—25.	25—60	60 and upwards.	Total
Male ...	10	34	100	35	81	16	276
Female...	4	23	80	116	172	18	413
	—	—	—	—	—	—	—
Total...	14	57	180	151	253	34	689

The total number of deaths in the past nine years at different groups of ages was as follows :—

Under 1 year.	1-5	5-15	15-25	25-60	60 & upwards	Total
11	3	3	3	16	17	53

The 11 *infantile* deaths during the past nine years included five from premature birth, four from debility, one from whooping-cough, and one from convulsions.

The annual rate of infant mortality on the average of the last nine years has been 132 births to every 1000 children born ; but the numbers are too small to be of any practical value.

There were six deaths from *zymotic*, or catching disorders during the last nine years :—one from diarrhœa in 1876, one from whooping-cough in 1880, two from measles in 1882, and two from enteric fever in 1883.

The average annual rate of zymotic mortality is, therefore, 1·0 per 1,000 persons living.

Enteric Fever.—This disease appeared in five houses in May and June, and it was the cause of two deaths. All these houses were built about 25 or 28 years ago, and they show all the defects of that period. Three of these houses were in a terrace facing the sea, in an open situation, and they were large and commodious dwellings. They would be healthy enough were it not for the evil plan then in vogue of having drains *inside* a house, and having the water supply in direct connection with a drain. In consequence of previous reports, many owners and occupiers have remedied these defects, and when new houses are built a different plan is adopted, but still there are a few houses left in which until lately nothing has been done. The following report was sent to the Sanitary Authority on June 29th, and it shows the nature of the defects which were the cause of the illness :

“ In consequence of the prevalence of the disease I have examined the condition of the sewers and drains, and I have made an inspection of several houses where sanitary defects have been suspected, and more especially into the condition of Thorn’s Terrace and Heene Mews.

At the end of April a youth living at No. 3, Thorn’s Terrace was attacked with the fever, and then two other boys failed in the same house, of whom one died on May 21st.

On June 8th I visited three other houses, in each of which there was a case of enteric fever, in each instance a servant being attacked. In a few days a fourth case was reported in another house. Each person had been ill about three weeks, so that they must have caught the disease in the early part of May, and just about the time when the youths in No. 3, Thorn’s Terrace were suffering from the disorder.

The drains were flushed on June 9th by means of a hose

attached to a hydrant, but, although this was renewed twice for an hour-and-a-half, it failed to clean the drains in Thorn's Terrace or in Brunswick Road. On June 15th, and on several occasions since, the sewer in Brunswick Road has been temporarily stopped up and then filled behind with water; the obstruction then being quickly removed, the sewer has been more effectually flushed; but even now the fall in the drain from Thorn's Terrace is so slight that the contents cannot flow very properly. This drain was opened on June 20th at the north end, and it was found to be a 9-inch pipe laid six feet below the surface of the ground, and containing $6\frac{1}{2}$ inches of liquid, leaving only a space of $2\frac{1}{2}$ inches above; after being flushed several times the fluid remained at the same height in the pipes.

This drain is defective because there is no proper fall, so that the contents cannot flow away daily, and there is no due provision for flushing the drain. The drain, moreover, is laid in such a singular way that it can never properly drain the houses. It begins on the west side of the houses, and runs along the back of them; it then turns round the north end of the terrace, and finally it runs along nearly a dead level by the east of the houses to a spot in the Brunswick Road. It is in shape something like a U. This drain was extremely foul, and the sewage was very black and offensive.

Several other drains were examined, and many of them were flushed, but none of them were in the same foul condition as the one above described.

I have had every man-hole opened and, with the exception of the one in Brunswick Road, there were no defects, except that in dry weather there is not a sufficient amount of flushing.

The man-hole in the Brunswick Road was defective because the catch-pit was too large, and an accumulation of sewage took place there which made it very foul. This has now been remedied.

In the first three weeks of April there was only one-third of an inch of rainfall, and the early part of May was also very dry, so that the drains were not receiving a due amount of water, and the contents, not being carried away where the fall was insufficient, became foul and dangerous. But even this might not have been enough to cause fever were it not for certain sanitary defects in the houses themselves whereby the foul gases were enabled to enter the dwellings.

Such defects were most marked in Thorn's Terrace and in Heene Mews, so that I have visited every house and examined into the water supply and drainage.

A. THORN'S TERRACE.

There are fifteen houses in this terrace, and there have been

on several occasions cases of illness here, and in nearly every one complaints have been made of foul gases in the house. These houses are an excellent example of the evils arising from defective drainage. They were built on a totally wrong plan, and they show nearly all the faults which I pointed out in a report to your Authority in June, 1875, and again in October, 1879.

1. The *water supply* to all these houses is from a large tank at Nos. 7 and 8. This tank supplies water for drinking purposes, and it is also used for flushing the closets and drains. Each closet is furnished with a $\frac{3}{4}$ in. pipe, and the quantity for flushing purposes is very insufficient. I have not been able to find out whether the overflow pipe is in direct connection with the drain or not. It is wrong for drinking water to be drawn from the same cistern which supplies the closets.

2. In each house, with one exception, there is a closet on the second floor, which is placed in the middle of the house, so that there is no window in an external wall whereby it can be properly ventilated. The soil-pipe descends in the middle of the house, and it then runs beneath the passage and under the kitchen into the drain.

Many complaints have been made of smells arising from leaky joints. The closets are not ventilated, nor are the soil-pipes ventilated, so that they are always full of sewer gas, and since the closet is at the highest point of the drain, it allows foul air to escape every time it is used. In each case the closet is furnished with a container and D. trap, and as these always become foul after being in use a year or two, the nuisance is still further increased. In addition, the flow of water is in nearly each case so poor that there is not sufficient flushing power.

The sink-pipes are in direct connection with the drain, except in one case, and, whenever the bell-traps are off, there is another entrance for sewer gas into the house. And when to these defects is added the fact that the main sewer which receives the drainage of these houses is never properly emptied or flushed, there can be but little doubt that there exist all the conditions favourable for the production of enteric fever.

At different times enteric fever has appeared thrice in this locality; but where there has been no definite illness, there have been numerous complaints of sewer gas entering the house and causing much discomfort.

The proper way to remedy these defects is :—

1. To cut off the sink-pipe outside, so that it delivers on to an open grid or trap.

2. To remove the present closets; to put the soil-pipes outside the houses, and to ventilate each pipe at the highest point.

3. To do away with the present pan and trap, and to put up one on the wash-out principle.

4. To provide a small cistern for each closet, such cistern to have a pipe at least $1\frac{1}{4}$ inch in diameter, so that the closet can be quickly and effectually flushed, and the drinking water cannot be polluted.

5. To put up the closet against an external wall, and furnished with a window opening into the outer air.

6. The old pipes must be removed, and the old connections with the drains should be properly cut off.

If these changes were carried out, and they have been partially carried out at No. 11, the houses would be greatly improved, and the entrance of sewer-gas would be avoided.

The drain leading to the sewer requires altering.

There is no occasion for the drain at the north and east sides of the terrace. At a spot about half-way down the west side, a drain should be laid running west into a new sewer which runs along a newly made road and connects with the Brunswick Road.

This would involve relaying part of the present drain, and then the contents would flow along a much better gradient, and it could be flushed in dry weather if an opening were made in the drain for that purpose. The drain could be properly ventilated by a pipe at each end of the terrace.

B. HEENE MEWS.

There are here ten houses, nine of which are on the west side of the road and one on the east side.

1. *Water supply*.—Each house is furnished with a tank, which supplies water for drinking and for flushing purposes.

2. In each house there is a closet with container and D. trap, but provided with a window which communicates with the open air. The waste-pipe from each cistern opens into the container, so that any foul air here may pass upwards and pollute the water.

In some cases the sink-pipe is cut off from the drain, but in others it is in direct connection, as in Nos. 3 and 10.

In No. 8 the sink-pipe is broken and requires repairing.

There has been one death from enteric fever at No. 7 a week ago.

In this row of houses it is necessary:—

1. To cut off each sink-pipe from direct communication with the drain.

2. To let the waste-pipe from each cistern deliver into the open-air, and not into the container.

3. To provide a separate small cistern for each closet,

4. It would be very desirable to remove the present pans and traps, and to substitute pans on the wash-out principle.

5. To ventilate each soil-pipe, and to put it outside each house.

6. To ventilate the main drain at each end by a vertical pipe.

Most of these improvements have been carried out in the houses in Heene Terrace, and the ventilation of the houses is thereby much improved.

Many of the new houses, as for instance those in St. Botolph's Road are constructed on the above principles.

But so long as these defects exist in places like Thorn's Terrace and Heene Mews, so long will there be a danger of occasional outbreaks of enteric fever, and when once the main drains become polluted with the germs of enteric fever, there will be the still further danger of the disease being conveyed to other houses which have few sanitary defects.

I am of opinion that the fever first broke out in Thorn's Terrace through local sanitary defects, and then that the drains and main sewer having become polluted by the infectious germs, the disease spread to other houses in the district. This opinion is, I think, confirmed by the fact that no fresh cases seem to have occurred since the beginning of the month, nor since the time when the drains were well flushed.

In conclusion, I would advise that in dry weather the main drains should be systematically flushed; that a hydrant should be placed near the highest point or commencement of each drain, so that by fixing a hose to such hydrant the drain can be well flushed; that some contrivance, such as a flushing-valve, should be provided for some of the manholes, as for the one in Brunswick Road, so that more efficient flushing may be carried out where the fall is slight; that the water-cart be so altered that, by removing the horizontal perforated bar hose, could be fitted on, and the contents of the cart could be used to flush short lengths of drains where there is no fixed hydrant; and, lastly, that a few more ventilating pipes should be carried up from the main sewers by the side of conveniently placed houses, the position of such ventilators being indicated hereafter."

As a result of this report the sewers were well flushed three times a week during the wet weather, the manholes were kept clean, and fresh ventilators were put up, and the drain from Thorn's Terrace was altered in the way suggested. In four of the houses in Thorn's Terrace, the proposed alterations have been carried out, and the owner has promised to carry out a similar change in all of them; three of the unaltered houses are now empty. In the other cases similar alterations were carried out.

The following table gives a summary of the death-rate from.

all causes and from various causes on the average of the past five years :—

Per 100,000 persons living.				
All ages, both sexes.				
				1879-83.
General Death-rate	..	..	..	1132
Zymotic	„	..	..	145
Phthisis	„	..	..	116
Lung Disease	..	..	..	29
Heart Disease	..	..	..	174
Under 1 year	..	..	..	11428
Under 5 years	..	..	..	2535

There was one *inquest* held during the year :—Male, adult, unknown age, suicide.

There were no deaths returned as “not certified” in the district.

There was no death of any child born out of wedlock.

No cases of overcrowding had to be abated.

No cases arose during the year in which it was necessary to condemn meat or any other article of food which had been exposed for sale.

There is no common lodging-house or slaughter-house in the district.

No proceedings were taken before the magistrates during the year.

Table A is given, but Table B is omitted as there are no paupers in this district.

TABLE A.—Showing the Deaths during the year 1883, in the Urban Sanitary Localities, and showing also the Population

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								Small Pox.
	Census 1881	Estimated to middle of 1883.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11	12	13
West Worthing URBAN SANITARY DISTRICT.	689	850	10	12	2	1	1	—	7	1	Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
											Under 5. 5 upwds	.....
TOTALS ..	689	850	10	12	2	1	1	—	7	1	Under 5. 5 upwds	.....
Deaths occurring outside the district among persons belonging thereto											Under 5. 5 upwds	.....
Deaths occurring within the district among persons not belonging thereto											Under 5. 5 upwds	.....

URBAN SANITARY DISTRICT OF ARUNDEL.

POPULATION, 2956 in 1871; 2748 in 1881. AREA IN ACRES, 1969; No. OF HOUSES, 546 in 1871; 552 in 1881.

During the year 1883 the births of 71 children and the deaths of 45 persons were registered; of the births 41 were male and 30 were female; of the deaths 21 were male and 24 were female.

Estimating the population in the middle of the year at 2750, the birth-rate was equal to 25·8 per 1,000, and the death-rate was equal to 16·3 per 1,000 persons living. These figures include one death which occurred in the East Preston Workhouse.

The births and deaths for the past two years have been as follows :—

Year.	Births.	Birth-rate,	Deaths.	Death-rate.
1882	82	30·0	50	18·1
1883	71	25·8	45	16·3

In each quarter the births and deaths were as follows :—

		Births,			Deaths.		
		M.	F.	Total.	M.	F.	Total.
First Quarter	...	13	8	21	4	8	12
2nd	„	10	7	17	—	6	6
3rd	„	6	9	15	5	5	10
4th	„	12	6	18	12	5	17
		—	—	—	—	—	—
Total	...	41	30	71	21	24	45

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Total.
1st Quarter..	1	3	—	—	2	6	12
2nd „ ..	—	1	—	1	1	3	6
3rd „ ..	2	—	—	—	3	5	10
4th „ ..	3	4	—	2	4	4	17
	—	—	—	—	—	—	—
Total ..	6	8	—	3	10	18	45

POPULATION.—The recent census returns show a slight excess of females over males, as may be seen in the following table :—

	Under one year.	1—5.	5—15.	15—25.	25—60	60 and upwards.	Total
Male	30	133	331	241	487	135	1357
Female	37	127	297	253	531	146	1391
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	67	260	628	494	1018	281	2748

There was a considerable decrease in the population between 1871 and 1881, amounting to a loss of 208 persons; the present numbers are, however, higher than in 1861, as may be seen by the following comparison :—

Year.	Persons.	Males.	Females.
1861.....	2498	1201	1297
1871.....	2956	1466	1490
1881.....	2748	1357	1391

The excess in 1871 is attributed to an influx of masons and labourers employed in the erection of extensive buildings, including a Roman Catholic Church then in progress. This explanation is hardly sufficient to account for the increase then, and the decrease since, because the changes have taken place alike in the numbers of both sexes, whereas the employment of extra labour would have helped chiefly to increase the male element. The females are slightly in excess of the males, and this seems to be the case in most urban districts. Up to ten years of age there are more boys than girls, because more boys than girls are born, but after that age the females are in considerable excess.

The distribution of the population, and also the death-rate last year at different groups of ages are here shown :—

	Under 1 year.	1-5	5-15	15-25	25-60	60 & upwards	Total
Population ..	67	260	628	494	1020	281	2750
Deaths ..	6	8	0	3	10	18	45
Death-rate ..	89·5	30·7	0·0	6·0	9·8	64·0	16·3

The *Infant* mortality is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

Year.	Births.	Deaths under one year.	Ratio to 1000 births.
1883	71	6	84

The rate of infant mortality throughout England and Wales was equal to 137 per 1000, against 130 and 141 in the two preceding years,

The six *infantile deaths* included one from measles, one from convulsions, one from laryngitis, and three from debility.

ZYMOTIC DISEASE.—There was one death of an infant from *measles* during the year, and this was the only death among the *zymotic*, or catching disorders. The rate of zymotic mortality was, therefore, equal to 0·3 per 1000 persons living; in West Sussex this rate was 1·3 per 1000 of population.

WATER SUPPLY.—The chief supply of water used to be from wells sunk in the chalk on which the town is built, and in many places the wells are very deep. Many years ago the Duke of Norfolk gave the town a free supply of water from a large tank in the park. This water is obtained from a spring which issues from the chalk to the north of the town at a spot very near the Dairy, in Mill Lane. From this spring the water is pumped up a steep hill into a large tank which is covered over with a slate roof, and which is fenced round. It is 102 feet long, 32 feet wide, and nearly 10 feet in depth. It can hold about 200,000 gallons, or 912 tons of water. This tank is sunk in the ground so that the roof is a little higher than the turf around. A pipe from this tank leads to a smaller tank close to, which is also sunk in the chalk, and this receives the overflow from the large tank. It is from this second and smaller tank that the town is supplied. There is also another large storage tank which is used for surplus water in case of any emergency; all these reservoirs are upon high ground, much above the town, and far away from any chance of pollution. They are all the private property of the Duke of Norfolk. A pipe from the smaller reservoir runs nearly due south for about 500 yards, when it enters the town in New Road; thence it divides into two main branches, and a constant supply of good water is obtained from hydrants, or stand-pipes.

There is one hydrant in New Road, but this can only be used for watering the streets. There are three hydrants between King-street and Poor House Hill, where there are a great many small tenements; there are two hydrants in Maltravers-street, two in Tarrant-street, one near the school in Surrey-street, and one near Ship Yard. A further public supply may be obtained from a pump in the market place, and many people also fetch water from a pump in a private yard at the south-west end of the town, so that there are about eleven places where the people can draw as much water as they like, such water being of excellent quality, and free of cost. It seems to have been the original intention of the Duke of Norfolk that his public gift should only supplement the old supply from wells, and that it should furnish the inhabitants with such good water as they might want for drinking purposes. The result, however, has been that very few people use the well water, and many of the wells are now out of condition, and they would want repairing

before they could be used. The people seem to prefer going to a public source, rather than drawing from their own wells.

DRAINAGE AND SEWAGE.—The drainage of the town is an easy matter in consequence of its natural situation on the slope of a hill.

The river Arun runs at the foot of the slope from north-east to south-west, and it receives all the solid and liquid matters which flow into the drains. This being a tidal river, and the different outlets being well above the bed of the stream, the drains are readily emptied between each tide. From a map of the town dated about 30 years ago, it would appear that the main sewers are made of brick and known as barrel-drains. It is, however, doubtful if this is the case, but there are no man-holes or lampholes by which a proper inspection can be made. At the outfall into the river the drains seem to be well made, and they are closed by iron valves to prevent the entrance of river-water during the time of high tides. It seems probable that these drains were originally made to carry off storm water, but in the course of time numerous house-drains have been connected with them, and numerous closets have been turned into water-closets, so that now the sewers carry into the river nearly all the sewage of the town. In the great majority of cases the closets are outside of the houses, and consist of a hopper pan and trap, the flushing being done by throwing down water from a pail or bucket. The water is not laid on to a closet, and therefore, the flushing must often be scanty; yet on the whole it seems to be very well carried out, and the sanitary condition of the premises contrasts very favourably with that of other places where there is a regular supply of water.

This cleanliness is much helped by the ample fall in the sewers, and by the fact that whenever rain falls there is ample flushing.

All the sewers seem to be in good condition, except one which runs near Surrey-street, where, near the outlet, it has been laid too low, so that at high water, and especially when there is much rainfall at the time, the sewer becomes overcharged for several hours, and the contents flow backward into the yards of some low-lying houses.

This has now been remedied by doing away with the old closets and cesspits, and by supplying water-closets at a higher level.

There are numerous traps in the various streets, by which storm-water is conveyed into the sewers, but many of them are liable to get out of order by the flow of silt or road debris into them, or by sticks, stones, &c., being pushed down them. They require constant inspection and cleaning out, and in dry weather the flushing of the drains does not seem to be sufficient. It would be easy to remedy this by obtaining water from the

public supply or from the river. There is a water-cart used for street purposes, and in dry seasons it could be easily utilised for flushing the traps and sewers.

There does not appear to be any ventilation of the drains, and hence at the higher parts of the town sewer-gas readily escapes whenever a trap is opened. Very little complaint has arisen from this cause, because there are very few drains inside any houses, and so there is no perceptible smell, but as the sewers are now constructed they must very often be fully charged with sewer-gas. This could be remedied by carrying up ventilators directly from the main sewers to a point above the eaves of any house, and this should especially be done at the highest parts of the town.

There does not seem to be any method in the connection of house drains with the sewers, no building operations are going on, and a sewer is rarely opened; but in future no one should be allowed to connect his house with the sewer unless the work be done to the satisfaction of the Sanitary Authority.

ASHPITS AND DUSTBINS.—There is one dust-cart which is employed two days in the week in removing cinders, vegetable refuse, &c.

The man does not empty the ashpits, but the inhabitants place the rubbish in a tub outside their houses, and each tub is emptied into the cart as it goes along. This plan seems to answer very well.

There were no *inquests* held during the year.

There was one death returned as “not certified,” out of a total of 45 deaths:—Male, nine months, measles and convulsions.

There was one death of a child born out of wedlock:—Male, three months, mesenteric disease, convulsions, certified.

There were no cases of overcrowding dealt with during the year.

There are eight bakehouses, and these are all very fairly kept; more regularity should be shown in limewashing them in the spring and autumn.

There are three common lodging-houses, which are kept in a cleanly condition.

There are five slaughter-houses, which are well kept, and which are lime-washed and cleansed at intervals.

No case arose during the year in which it was necessary to condemn meat or any other article of food which had been exposed for sale.

No proceedings were taken before the magistrates during the year.

TABLE A.—Showing the Deaths during the year 1883, in the Urban Sanitary Localities, and showing also the Population.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	Census 1881	Estimated to middle of 1883.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
ARUNDEL URBAN SANITARY DISTRICT.	2748	2750	71	44	6	8	—	2	10	18	Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
											Under 5. 5 upwds
TOTALS ..	2748	2750	71	44	6	8	—	2	10	18	Under 5. 5 upwds
Deaths occurring outside the district among persons belonging thereto				1				1			Under 5. 5 upwds
Deaths occurring within the district among persons not belonging thereto											Under 5. 5 upwds

istrict of ARUNDEL, classified according to Diseases, Ages, and
such Localities and the Births therein during the year.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

[illegible]

TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the
District of ARUNDEL classified

NAMES OF LOCALITIES.	NEW CASES OF SICKNESS, IN PERSONS BELONGING TO THE DISTRICT OF ARUNDEL							
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough. 18	Con- sumption 19
1								
Arundel Urban Sanitary District.	Under 5		2					
	5 upwds.		2					
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
Totals.....	Under 5		2					
	5 upwds.		2					

SOURCES OF INFORMATION ;--In Workhouse and Workhouse Infirmary,

Medical Officer of Health, during the year 1883, in the Urban Sanitary District of London, according to Localities and Diseases.

[illegible]

ing Out-door Paupers, 45.

GENERAL REPORT

ON THE

HEALTH OF THE COMBINED

SANITARY DISTRICT OF WEST SUSSEX.

The combined Sanitary District includes at the present time the rural sanitary districts of Steyning, Horsham, Petworth, Thakeham, East Preston, Midhurst, and Westbourne, together with the urban sanitary districts of Worthing, Littlehampton, West Worthing, and Arundel.

It covers an area of 335,492 square acres, or about 524 square miles. At the census in 1881 there were upon this area 19083 inhabited houses, 1186 uninhabited houses, while 254 were in process of building.

The enumerated population in 1881 was 97,348, as compared with 88,599 in 1871, thus showing an increase of 8,749 persons during the decade, but three of the districts now included in the combination have joined since 1876, so that these figures show the population on the present area at the two periods, while the figures given hereafter show the population of the combined district in each of the past nine years. Midhurst joined in 1876, Westbourne in 1880, and Arundel in 1882.

During the past three years, the births were 8727, and the deaths were 4186, so that the natural increase of population by excess of births over deaths was, therefore, 4541; the estimated increase is only 3,082 as in many of the districts there is a

considerable migration from the villages towards the towns. The estimated population in the middle of 1883 is 100,430.

BIRTHS.

During the year 1883, the births of 2,886 children were registered, and of these 1,460 were male and 1,426 were female.

The following table shows the births and birth-rate during the past eight years:—

Year	Population		Births.				Total	Rate	
			Male		Female			per	1000
1876	81703	....	1253	....	1187	....	2440	.... 29·8
1877	82610	....	1309	....	1240	....	2549	.... 30·8
1878	83627	....	1328	....	1253	....	2581	.... 30·8
1879	84648	....	1379	....	1255	....	2634	.... 31·1
1880	86244	....	1277	....	1337	....	2614	.... 30·3
1881	94860	....	1463	....	1405	....	2868	.... 30·2
1882	96220	....	1592	....	1381	....	2973	.... 30·9
1883	100430	....	1460	....	1426	....	2886	.... 28·7
Total.....			11061		10484		21545		30·3

The birth-rate varies very much in each district, and this variation depends chiefly on the proportion of married women in each population living at the child-bearing ages. In Petworth and Thakeham Unions the birth-rate was as low as 27·5 and 28·0 per 1000, and in these districts the population is either declining or stationary, so that there is an excess of aged people, while the young men and women seek employment elsewhere. In Steyning and Horsham Unions the birth-rate was 31·0 and 30·3, and in these districts the population is increasing and the proportion of aged people is much less. The tables at the end of this report will bring out this point more clearly.

The birth-rate in the combined district for 1883 was equal to 28·7 per 1000 persons estimated to be living in the middle of the year, and it is much lower than any rate recorded since 1876 when it was 29·8. Nor is this diminution confined to West Sussex.

Throughout England and Wales the birth-rate has been gradually declining during the past seven years. In 1876, the

rate was 36·3, and since then it has gradually fallen to 33·2 in 1883, and it is lower than that recorded in any year since 1849 when it was so low as 32·9. The birth-rate is, of course, much affected by the marriage rate, which in the year 1873, was as high as 17·6 per 1000, since which time it gradually sank to 14·4 in 1879 and from that year it has gradually improved to 15·5 in 1882.

The variations of the marriage-rate in different counties are very marked. In Northumberland and Durham with a large mining population, the marriage rate was 21·8 and 20·6 in 1873, a year when wages were high and the men were prosperous; in the year 1879, these rates had fallen to 15·0 and 12·6, or a decline respectively of 6·8 and 8·0 per 1000 persons living.

In Sussex, with its agricultural population, there are no such sudden waves of prosperity and depression. The marriage-rate, which in 1873 was only 13·9, rose to its highest point in 1876 when it was 14·6 and it sank gradually to 13·6 in 1880 when it was at its lowest point, the difference between the maximum and the minimum being 1·0 per 1000. With such a slight disturbance in the marriage-rate, the changes in the birth-rate have not been very marked, though the long-continued depression in trade seems to have lowered the rate last year. The depression has perhaps affected the agricultural labourer less than any other class.

In the year 1880 there were more females born than males, but in the other seven years the males, as usual, were in excess. Out of the 32 periods of three months each, there were nine quarters in which more females than males were born, viz., once in each of the years 1876, 1877 and 1878, and twice in each of the years 1879, 1880 and 1881. This female excess occurred three times in the first quarter of the year and twice in each of the other quarters of the year. In 23 quarters the male births were in excess. Taking the whole eight years together there were 11,061 male and 10,484 female children born, or an excess of 577 boys.

The proportion between the two sexes is 105·5 male births to every 100 female births; this is a higher proportion than that met with throughout England and Wales, where it was respectively 103·6, 103·6 and 103·9 in the three years 1879-1881.

In each quarter of the past year the births were thus distributed :—

	Male		Female		Total		Per cent.
1st Quarter.....	391	....	381	....	772	....	26·7
2nd „	358	. . .	353	....	711	....	24·6
3rd „	367	....	359	....	726	....	25·2
4th „	344	....	333	....	677	....	23·5
Total	1460		1426		2886		100·0

The births are most numerous in the first quarter of the year, from which time they gradually decrease until the close of the year.

The marriage-rate, on the contrary, is highest in the second and fourth quarters, and lowest in the first and third quarters of the year; this variation will, to some slight extent, cause variations in the birth-rate.

Births in each quarter, 1876-83.

	Male		Female		Total		Per cent.
1st Quarter	2825	....	2791	....	5616	....	26·1
2nd „	2787	....	2602	....	5389	....	25·0
3rd „	2744	....	2580	....	5324	....	24·7
4th „	2705	....	2511	....	5216	....	24·2
Total	11061		10484		21545		100·0

The birth-rate per 1000 persons living in each district on the average of the past eight years is here contrasted :—

Steypning	32·7	Westbourne (3 years) ..	28·6
Horsham	31·6	Worthing	27·8
Petworth	28·9	Littlehampton	28·5
Thakeham	31·1	West Worthing	14·2
East Preston	30·8	Arundel (2 years)	27·9
Midhurst	30·2		

DEATHS.

In the whole of the combined Sanitary District the deaths of 1487 persons were registered during 1883, and of these 782 were male and 705 were female.

The death-rate in each district during the past year is here contrasted :—

District	Population.			Deaths.			Death-rate
Steyning	17000	..	..	279	..	..	16·4
Horsham	15840	..	..	202	..	..	12·7
Petworth	9500	..	..	171	..	..	18·0
Thakeham	8280	..	..	121	..	..	14·6
East Preston	8330	..	..	130	..	..	15·6
Midhurst	14210	..	..	188	..	..	13·2
Westbourne.....	7490	..	..	120	..	..	16·0
Worthing	12180	..	..	{ 164	..	..	{ 13·4
				{ *151	..	..	{ *12·4
Littlehampton....	4000	..	..	{ 55	..	..	{ 13·7
				{ *54	..	..	{ *13·5
West Worthing ..	850	..	..	12	..	..	14·1
Arundel	2750	..	..	45	..	..	16·3
100,430				{ 1487			{ 14·8
				{ *1473			{ *14·6

* Excluding Visitors.

There were 1,485 deaths actually registered within the whole district, but to this number should be added the deaths of 23 persons occurring outside the district among persons belonging thereto; from this total of 1,508 should be deducted the deaths of 35 persons occurring within the district among persons not belonging thereto, leaving the total number as above at 1,473. Of these 35 persons, 14 were visitors at Worthing and at Littlehampton, and 21 were persons who died in Workhouses and who came from places not included in the combination. The 14 deaths among visitors are added to the total number, so that this general report deals with 1,487 deaths.

The general death-rate of 14·8 in 1883 was 0·5 higher than in 1882, and 0·9 higher than in 1881, but with these exceptions it was lower than that recorded in any previous year.

The death-rate in England and Wales in 1883 was equal to 19·5 per 1000 persons living; it is always much higher in large towns than amongst rural populations.

	Death-rate in 1883.	Mean death-rate, 1873-82.
Chief Towns.....	20·8	22·5
Small Towns & Country parishes	17·7	18·6
England and Wales	19·5	20·8

The following summary shows the changes in the death-rate in this district and in England during the last nine years :—

	West Sussex.	England.
1875	17·0	22·7
1876-80	15·4	20·8
1881	13·9	18·9
1882	14·3	19·6
1883	14·8	19·5

The deaths and death-rate in each of the past eight years are here shown :—

Year.	Population.	Deaths.		Total.	Rate per 1000
		Male.	Female.		
1876.....	81703	725	626	1351	16·5
1877.....	82610	642	570	1212	14·6
1878.....	83627	690	664	1354	16·1
1879.....	84648	695	597	1292	15·2
1880.....	86244	689	598	1287	14·9
1881.....	94860	720	603	1323	13·9
1882.....	96220	705	671	1376	14·3
1883.....	100430	782	705	1487	14·8
Total.....		5648	5034	10682	15·0

In each year more males died than females, so that in the eight years there is an excess of 614 male deaths; this is due partly to the fact that the mortality among males is greater than among females, and partly to the fact that in West Sussex the male element of the population exceeds the average proportion throughout the country generally, and this is most marked in the agricultural districts.

In each quarter of the past year the deaths were thus distributed :—

	Male.		Female.		Total.		Per cent.
1st. Quarter.....	215	..	184	..	399	..	26·8
2nd. „	210	..	214	..	424	..	28·5
3rd. „	168	..	154	..	322	..	21·7
4th. „	189	..	153	..	342	..	23·0
Total.....	782		705		1487		100·0

As a rule, deaths are most frequent in the first quarter of the year, but an exception will be noticed here owing to the great mortality in April, May and June without there being any clear cause for such an increase.

In each quarter of the past eight years the deaths were thus distributed :—

Year.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.
1876	406	339	293	313	1351
1877	330	324	266	292	1212
1878	366	322	329	337	1354
1879	398	327	266	301	1292
1880	364	333	314	276	1287
1881	369	354	307	293	1323
1882	381	319	329	347	1376
1883	399	424	322	342	1487
Total	3013	2742	2426	2501	10682
Per cent. ..	28·2	25·7	22·7	23·4	100·0

The deaths at different groups of ages during the past year was as follows :—

	Under 1 year.	1-5	5-15	15-25	25-60	60 and upwards.	Total.
1st Quarter.....	70	38	15	19	95	162	399
2nd „	72	39	28	20	100	165	424
3rd „	64	27	10	13	98	110	322
4th „	49	38	12	26	92	125	342
Total „	255	142	65	78	385	562	1487

The influence of season is better shown by dividing the year into three periods according to the temperature; the following table shows the number of deaths in the past eight years which occurred during each such period:—

	Cold.	Deaths.	Per cent.
December to March	36 deg.—41 deg.	.. 3910	.. 36·6
	Moderate.		
April, May, Oct., Nov. . .	41 deg.—57 deg.	.. 3504	.. 32·8
	Hot.		
June to September	57 deg.—63 deg.	.. 3268	.. 30·6
Total		10682	100·0

Cold weather has a marked influence in increasing the death-rate, while during the recent moderate summers the mortality has been low.

The influence of each quarter on the young and on the aged may be traced by comparing the deaths at different ages during each quarter over a long period of time.

The following summary shows the deaths at various groups of ages in each quarter during a period of five years. In infancy and in old age the first three months of the year prove most fatal, while in the third quarter the mortality will be found low at nearly all ages.

This table should be compared with Table XI., where the temperature of each month is shown, and also the number of deaths in each month.

1879-83.	Under 1 year.	1-5	5-15	15-25	25-60	60 and upwards.	Total.
1st Quarter	361	197	84	96	388	785	1911
2nd „	305	149	114	86	411	692	1757
3rd „	335	145	67	79	394	518	1538
4th „	260	136	74	88	374	627	1559
Total	1261	627	339	349	1567	2622	6765

The following table shows the number of deaths in each year at different groups of ages :—

Year.		All Ages.	Under 1 year.	1-5	5-15	15-25	25-60	60 and upwards.
1876	..	1351	252	158	64	64	331	482
1877	..	1212	218	86	69	61	316	462
1878	..	1354	261	127	65	60	310	531
1879	..	1292	231	98	57	75	280	551
1880	..	1287	267	134	76	68	270	472
1881	..	1323	239	99	60	62	320	543
1882	..	1376	269	154	81	66	312	494
1883	..	1487	255	142	65	78	385	562
Total		10682	1992	998	537	534	2524	4097
Per 10,000	. . . .	1865	934	503	500	2362	3836	

Table II. gives the facts in much fuller detail, but the above summary shows how the number of deaths varies at each period of life, being high in infancy and in old age, but low in youth and early adult life. This variation is more evident when the numbers living at each period are known, and then the death-rate at various ages can be easily compared. It follows that if from any cause there should be an excess of aged people in a district the death-rate will be thereby somewhat raised ; if, on the other hand, there should be an excess of young people the death-rate will be low, because deaths at these ages are not so frequent. Thus the presence or absence of large schools, workhouses, public institutions, asylums, prisons, &c., affect the death-rate to some greater or less extent, and they must be taken into account when one district is compared with another. In this district there are no marked disturbing elements, and in most cases one factor neutralises another.* Thus schools are common in seaside towns, but their effect on the death-rate is neutralised by the number of people who come at advanced periods of life to end their days in such towns. The workhouse deaths are referred to the various parishes whence each inmate came, and a similar process is adopted in the case of a death in any public institution or infirmary. By using the same data year by year correct results may be obtained, and the corrections required for com-

paring one district with another are very slight when the districts are large.

The male death-rate is somewhat higher than the female death-rate, and, therefore, in rural districts, where there are more males than females, the mortality is slightly raised from this cause.

Tables III. and IV. show the male and female death-rates in each district, and in each year of the quintade 1879-83. This period is chosen as it includes the census year 1881 in the middle of the time, and, therefore, the estimated population can be given more correctly, while the number of years is sufficiently long to arrive at a fair average rate. The districts of Westbourne and Arundel are not included in this Table, as they did not form part of the combination during the whole of the period.

These Tables deal with nine districts, having a population of 43,498 males and 43,682 females, or a total of 87,180 persons.

1879-83.	All ages.	Under 1 year.	1-5	5-15	15-25	25-50	60 and upwards.
Male death-rate.	15·6	113·3	13·0	2·6	4·2	10·7	63·1
Female death-rate	13·6	82·7	12·0	3·4	4·7	8·4	57·5

Table V. deals with similar facts on an extended scale. It shows the annual rate of mortality per 1000 males and per 1000 females living at twelve groups of ages in each of the three years, 1881-3. It deals with the whole of the combined district, and the result is contrasted with the death-rate at corresponding ages throughout England and Wales in the healthy year of 1881. The table is so constructed that it may be readily compared with a similar table in the Registrar-General's annual report.

At each period of life up to 85 years of age the West Sussex rate is much lower than the rate which obtains throughout England generally, although a year has been taken in which the health of the country was very good.

Table VI. shows the distribution of population as to age and sex in the whole combined district, in the urban and rural portions of the combined district, in two large manufacturing towns, and in the whole of England.

The agricultural districts show an excess of males, while the large towns show an excess of females, and these variations occur unequally at different periods of life. From 15 to 45 years of age the females preponderate in the towns, as compared with the country, and although the difference is not so marked among males from 15 to 25 years of age yet it is very perceptible between 25 and 45 years of age.

The birth-rate in country districts is, therefore, always lower than in towns. After 45 years of age the males and females bear a higher proportion in the country than in towns, because the death-rate is much higher in large centres, and to some small extent there is an exodus into country districts in advanced life. This table, carefully studied, presents many points of interest.

INFANT MORTALITY.

There were during the past year 255 deaths of infants under one year of age, out of a total of 1487 deaths.

There were 2886 births, so that the infant mortality, as measured by the number of deaths under one year of age to every 1000 children born, was 88, against a rate of 103, 85, 101, 87, 102, 83, and 90 in the seven preceding years. The mean rate for the eight years amounts to 92 deaths to every 1000 births. Throughout England and Wales the infantile death-rate was equal to 137 per 1000, against 135, 153, 130, and 141, in the four preceding years.

Of the 255 infantile deaths, three were from measles, six from whooping-cough, 11 from diarrhoea, one from enteric fever, one from erysipelas, and one from chicken-pox. Three died of hydrocephalus, six of brain disease, 39 of convulsions, 48 from lung diseases, three from jaundice, 74 from debility or atrophy,

35 from premature birth, seven from malformation, six from teething, five from accidents, and six from causes not specified.

In each district the rate of infant mortality on the average of the past eight years is as follows :—

Steyning	104	Midhurst	86
Horsham	85	Westbourne (3 years)	90
Petworth	85	Worthing	107
Thakeham	79	Littlehampton ..	105
East Preston	87	West Worthing ...	132
Arundel (1 year)	84		

MEAN AGE AT DEATH.

The 1487 persons who died in West Sussex in 1883 lived 61034·3 years, giving a mean age at death of 41·0 years; 782 males lived 32158·0 years, or a mean age of 41·1 years, and the 705 females lived 28876·3 years, or a mean age of 40·9 years.

Table VII. shows the mean age at death in each district for males and females; it is here summarised, and the result is contrasted with the two previous years.

Year.	Deaths.	BOTH SEXES.		
		Years lived.	Mean.	Corrected mean.
1881	1323	56,037·5	42·35	42·76
1882	1376	52,571·8	38·20	38·60
1883	1487	61,034·3	41·05	41·47
MALES.				
1881	720	29,387·9	40·81	41·21
1882	705	26,001·6	36·88	37·27
1883	782	32,158·0	41·12	41·53
FEMALES.				
1881	603	26,649·6	44·19	44·62
1882	671	26,570·2	39·60	40·00
1883	705	28,876·3	40·96	41·37

MEAN OF 1881-83.

All ages, 40·53 years; males, 39·66 years; females, 41·58 years.

The mean age at death is not of much value, as it does not take into account the ratio between the number of persons living

and the number of persons dying. It may happen that in two places with a very unequal general death-rate the mean age at death might be the same if the deaths happened to take place at similar ages.

In comparing different classes of the community the result will be still more fallacious unless the groups are taken at corresponding ages. Thus to contrast the mean age at death of an agricultural labourer with a clergyman would be incorrect. for a labourer begins his calling at 15 or 16 years of age, whereas a clergyman would not commence his work until 22 or 23 years of age; so that in contrasting the two groups the result would be much in favour of the class beginning late in life, as there would be no deaths before 22 years to lower the general average. From similar causes the mean age at death of all professional men is high.

When precisely similar data are taken into account, and when sufficient facts are noted so as to avoid local error, the mean age of death may give some interesting results. In former reports the mean age at death of the agricultural labourer has been shown to be 62·9 years on a basis of 1069 cases. To this former series has now been added the deaths among labourers for the past four years, thus giving a total of 1906 cases, of whom

34 died under 20 years of age,					
122 died between 20 and 30 years of age,					
124	„	„	30	„	40
154	„	„	40	„	50
236	„	„	50	„	60
393	„	„	60	„	70
511	„	„	70	„	80
298	„	„	80	„	90
31	„	„	90	„	100

Of the 1906 persons, 670, or 35 per cent., died under 60 years of age, while as many as 1236, or 65 per cent., died 60 years of age and upwards.

This second series comprises 837 deaths amongst labourers engaged in farm work, but not in such trades as bricklayers, carpenters, masons, &c. These 837 persons died during the past four years, and their mean age was as follows:—

Year.	Deaths.	Years lived.	Mean age at death.
1880	202	12503	61·90
1881	209	12801	61·25
1882	188	11035	58·70
1883	238	15170	63·74
<hr/> Total.		<hr/> 837	<hr/> 51509
			<hr/> 61·54

The corrected mean age at death will, therefore, be 62 years for the agricultural labourer. The highest age at death was 95 years, and the lowest age was 16 years.

Constantly engaged in the open air, the labourer rarely dies from anything but old age, lung disease, heart disease, and consumption. The chief causes of death are here given for the past three years:—

	1881.	1882.	1883.		Total.
Old age.	50	34	53	....	137
Lung diseases	39	29	50	....	118
Consumption .	23	26	30	....	79
Brain disease..	31	22	18	....	71
Heart disease.	16	22	28	....	66
Cancer	8	4	18	....	30

Most of the deaths put down to brain, lung, or heart disease were really due to changes which constantly take place in old age; in these three years there were only twelve deaths in the zymotic group, viz., 5 from diarrhoea, 4 from fever, and 3 from erysipelas.

ZYMOTIC DISORDERS.

Out of 1487 deaths from all causes in 1883, 131 were due to this class of diseases, or 1·3 to every 1000 persons living.

During the past eight years 1049 deaths have occurred in this group, or 1·4 deaths to every 1000 of population,

The above rates include all forms of zymotic disease.

Throughout England and Wales the annual rate of mortality from the seven principal zymotic diseases alone was 2·20 in 1883, against a rate of 3·14, 2·74, 3·43, 2·46, 3·37, 2·32, and 2·73 per 1000 persons living in the previous seven years.

In this combined district the zymotic rate in 1883 from the seven principal disorders alone was 1·17 per 1000 persons living.

Table VIII. shows the deaths and death-rate from these causes over a term of eight years. It will be seen that whooping-cough and diarrhœa head the list, followed in order by diphtheria, scarlatina, measles, and enteric fever. Small-pox is very low in the list, and it has hardly any effect on the deaths rate.

It is worth noticing that throughout England and Wales during the decade 1871-80, the order of prevalence of these diseases was different to what prevails in this district.

Diarrhœa in each case is first, but throughout the country scarlatina is next, followed in order by whooping-cough, measles, enteric fever, small-pox, and diphtheria.

Table IX. shows the zymotic deaths in each month of the past year.

There was an epidemic of *Small-pox* in Midhurst Union in May and June, but there were no other cases during the year.

Measles proved fatal in June, July, and August, while during the cold winter weather there were no deaths. On the other hand, *Scarlatina* prevailed in the autumn and winter months, while the mortality was extremely small in the summer.

Diphtheria, as usual, appeared in the autumn, and it then prevailed in an epidemic form at Henfield. *Enteric Fever* was at no time epidemic in the district, but there were several

isolated cases, and this disorder proved most fatal in the autumn.

Diarrhœa caused most deaths in the hot months of August and September, while it was nearly absent in cool weather.

Table X. shows the ages at death from zymotic disease during the last eight years. *Diarrhœa* and whooping-cough chiefly affect infants; measles is common in infancy and up to five years of age; diphtheria and scarlatina prevail most between four and ten years of age; while enteric fever is more fatal in early adult life.

Erysipelas affects the aged, and rheumatic fever is most fatal between fifteen and twenty-five years of age.

The table shows that if a child lives to ten years of age, the chances of dying from zymotic disease are very small.

RAINFALL.

The rainfall for the past year at three places in the combined district is here shown:—

1883.	WORTHING.		HORSHAM. (T. W. Cowan, Esq.)		PETWORTH. (Rev. C. Holland.)	
	Rainfall in inches	No of rainy days.	Rainfall in inches.	No. of rainy days.	Rainfall in Inches.	No. of rainy days.
Jan. ..	2.50	22	3.02	22	3.93	18
Feb. ..	3.55	19	4.24	19	6.18	15
March ..	0.70	11	0.56	9	1.32	8
April ..	1.54	7	1.63	10	1.50	8
May ..	2.39	11	2.07	11	2.29	10
June ..	1.11	12	2.40	11	2.88	11
July ..	2.92	13	2.69	16	2.68	15
August ..	0.83	12	0.73	10	1.36	6
Sept. ..	4.06	17	4.69	17	4.15	15
Oct. ..	2.85	12	2.77	15	2.92	10
Nov. ..	4.62	20	4.98	21	5.50	17
Dec. ..	1.03	14	1.06	17	1.09	9
Total ..	28.10	170	30.84	178	35.80	142

The rainfall at three different places in the combined district is here given for a term of years:—

Year.			Worthing. inches.	Horsham. inches.	Petworth. inches.
1875	..	..	30·57	—	34·14
1876	..	..	30·14	—	37·72
1877	..	..	35·39	—	44·89
1878	..	..	29·42	—	32·68
1879	..	..	32·13	—	43·68
1880	..	..	32·91	34·10	46·38
1881	..	..	29·97	29·53	34·89
1882	..	..	32·70	31·30	35·69
1883	..	..	28·10	30·84	35·80
Mean	..	..	31·26	31·44	38·43

HOURS OF SUNSHINE.

The following figures are taken from the Kew records, which are published weekly; they show the amount of bright sunshine in the South of England during the past six years, and they may be taken as approximately correct for this district:—

	1878.	1879.	1880.	1881.	1882.	1883.
	hours.	hours.	hours.	hours.	hours.	hours.
1st Quarter ..	141	138	235	176	203	300
2nd „ ..	500	352	524	559	571	578
3rd „ ..	451	355	487	526	509	465
4th „ ..	158	138	168	245	215	190
Total ..	1250	983	1414	1506	1498	1533

The following figures are taken from the Meteorological Record and they show the facts relating to four principal stations:—

DURATION OF BRIGHT SUNSHINE.

Station.	Total amount. hours.	Greatest amount on one day. hours.	No. of days on which no sunshine was registered.
Kew ..	1484	14·8	63
Greenwich	1241	13·7	82
Croydon ..	1368	13·8	81
St. Leonard's	1825	15·1	75

At Glynde, near Lewes, there were 1502 hours, against 1422, 1445, and 1562 in the three preceding years; at Bunhill Row, London, there were only 974 hours of bright sunshine, and there were 102 days in the year on which no sunshine was registered.

TEMPERATURE.

The figures here given are taken from the weekly and monthly records of the Meteorological Office, so far as they affect the South of England; they may be taken as approximately correct for this district:—

	1879.			1880.			1881.			1882.			1883.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
Jan.	57	15	33·8	57	13	35·0	54	4	31·6	54	24	41·1	57	27	43·8
Feb.	53	17	38·0	55	9	40·5	53	23	39·0	57	22	43·0	55	26	42·5
March ...	64	21	40·8	65	22	44·8	62	22	43·0	66	26	45·2	66	14	38·4
April	62	25	44·0	67	32	47·8	69	26	47·3	65	30	49·0	68	26	47·3
May	69	24	47·8	78	28	50·8	76	28	53·5	74	33	54·1	79	29	51·8
June	71	39	56·0	86	33	56·4	87	35	58·4	77	37	57·2	84	37	58·2
July	75	44	58·0	79	44	61·5	95	36	63·5	77	43	60·5	75	40	59·0
August ...	80	44	61·5	79	44	63·3	84	38	59·3	84	43	61·0	82	42	62·0
Sept.	74	36	57·0	87	40	61·6	75	35	56·2	71	33	55·8	77	36	58·0
Oct.	67	28	50·8	71	26	49·8	63	21	46·0	67	28	51·1	65	34	51·5
Nov.	58	17	41·8	60	16	43·6	64	28	49·5	61	21	44·5	58	23	44·8
Dec.	53	10	32·8	58	27	43·8	55	20	40·5	56	12	38·8	58	25	42·0

During January and February the weather was very mild and dull; in the middle of February much rain fell, and the weather was rough and unsettled. For the first nine weeks of the year the temperature was above the average, and the death-rate was low. The early part of March was dry, and on March 6th a cold period set in, with searching north winds and a little snow. The next four weeks were dry, with very frequent frosts, and in each week the temperature was much below the average; the death-rate rose considerably, and the deaths were more numerous than in any month of the year. During the first seventeen days of April no rain fell, but the

temperature was below the average and the daily range was greater than usual; on many days the sun shone brightly and the air was warm, followed by cold, frosty nights. The last part of April was wet and cold, while up to May 6th the weather was dry but cold, and accompanied with northerly and searching winds.

The following week was very wet and cold, but on May 13th there was a marked change, and summer-like weather prevailed. During the next four weeks the weather was dry, and the temperature was above the average; about the middle of June the weather became colder and rain fell nearly every day, but only to a small amount.

The death-rate remained high during the whole of the second quarter of the year, although there was no marked prevalence of any particular disorder. Scarlatina was nearly absent, but measles was very prevalent in May and June, at a time when the weather was warm and genial. July was a cool and rather dull month, and the death-rate fell considerably. In August the temperature was above the average and very little rain fell; although the general death-rate remained low, the deaths from diarrhoea were seven in number. In September the thermometer showed a higher average than it did either in 1881 or 1882; the first half of the month was dry, but in the last fortnight much rain fell. With a low general death-rate, the fatal cases of diarrhoea rose to nine in number. Measles and diphtheria proved very fatal in July and August. October was a pleasant, genial month, with a small rainfall and an absence of squalls and storms. The public health remained good, but with the approach of autumn there were several cases of diphtheria and enteric fever, although the latter disease did not prevail in an epidemic form. November was warmer than usual, but not so warm as in 1881; the rainfall was in excess, especially in the latter half of the month, when the weather was dull and unsettled with cold, dewy nights and very fine sunsets. Diarrhoea and measles now ceased, but diphtheria was more frequent, and

there were many cases of scarlatina; the general death-rate rose considerably. December turned out to be warmer than in any recent year except 1880; the rainfall was small in amount, and the air for the greater part of the month was soft and mild.

The death-rate was low, and cases of zymotic disease were but few in number; there were no deaths from measles or diarrhœa, and diphtheria ceased to prevail.

The following table gives a rough idea of the temperature during the past five years, and it shows that 1879 was the coldest of the series, since which time the weather has gradually become more favourable :—

	1879	1880	1881	1882	1883.
	weeks.	weeks.	weeks.	weeks.	weeks.
Above the average ..	3	18	12	25	29
Below the average ..	46	28	37	20	22
Average	3	6	3	7	1
	—	—	—	—	—
	52	52	52	52	52

A comparison of the above tables shows that 1883 was the warmest and brightest of the series; there was more sunshine and less rainfall.

The temperature of the soil at 9 a.m., one foot below the surface of the ground at Worthing, has been taken daily by W. J. Harris, Esq., F. R. Met. Soc., and the results for each month are here given :—

	Mean.	Max.	Min.
January	42·8	47·4	39·3
February	42·1	44·1	39·7
March	40·1	44·3	37·0
April	48·0	52·5	43·4
May	55·4	60·4	49·8
June	62·0	65·9	59·4
July	63·3	67·2	60·2
August	63·9	66·3	60·4
September	59·8	63·8	57·0
October	52·8	55·5	48·2
November	45·0	51·1	40·4
December	41·7	46·1	37·8
	—	—	—
Year	51·4	67·2	37·0

Except in February and November, the mean temperature of the soil was higher than the mean temperature of the air at the same hour.

The following table is also taken from observations made by Mr. Harris, who has kindly allowed me to make use of them; the facts recorded concern Worthing only :—

Month.	Means at 9 a.m.		Temperature.						Temperature.				Rain.
	Temperature.	Humidity.	Means.			Extremes in Month.			Mean amount of Cloud at 9 a.m.	Amount.	No. of days.		
			Min.	Max.	Range.	Mean.	Min.	Max.				Range.	
January	42.5	86	38.3	46.5	8.2	42.4	30.5	52.2	21.7	6.4	2.42	22	
February	43.5	90	38.7	48.7	10.0	43.7	32.6	56.2	23.6	6.2	3.16	20	
March	37.7	79	31.2	45.1	13.9	38.2	23.3	53.7	30.4	4.0	0.67	10	
April	47.6	78	39.6	54.0	14.4	46.8	32.1	61.1	29.0	5.7	1.48	8	
May	54.1	76	44.8	59.4	14.6	52.1	33.2	72.7	39.5	4.9	2.36	12	
June	60.4	75	51.1	65.4	14.3	58.2	40.3	72.4	32.1	5.2	0.93	12	
July	60.9	75	53.3	65.7	12.4	59.5	42.3	73.0	30.7	6.8	2.42	13	
August	63.2	74	55.4	68.1	12.7	61.8	48.1	75.7	27.6	5.0	0.87	13	
September	59.1	83	52.6	64.4	11.8	58.5	44.3	71.3	27.0	5.8	3.73	17	
October.....	52.6	84	46.4	57.7	11.3	52.0	36.7	64.0	27.3	5.9	2.64	12	
November.....	45.7	89	39.1	51.2	12.1	45.2	29.6	56.7	27.1	5.6	4.27	20	
December.....	41.0	86	36.9	45.0	8.1	40.9	28.8	53.2	24.4	7.0	1.10	15	
Year	50.7	81	43.9	55.9	12.0	49.9	23.3	75.7	52.4	5.7	26.05	174	

CAUSES OF DEATH.

The causes of death from all diseases and from four chief groups of diseases are shown in Table XII. Lung diseases, such as bronchitis, pneumonia, and pleurisy, cause the largest number of deaths, and considerably exceed the deaths from consumption, whereas in former years consumption was the first on the list. Table XIII. also shows more fully the causes of death in 1883. Old age follows lung diseases in the order of frequency, and it is succeeded in order by consumption, heart disease, and zymotic diseases. Diseases of the brain stand high, but many of these deaths are due to convulsions in infancy and childhood, so that this class is not definite enough to draw any conclusions. Accidents and suicides are low in the list, and the facts regarding these groups are given in detail in Tables XIV. and XV.

TABLE I.—Showing the Births in each District in 1883.

District.	1st Quarter.			2nd Quarter.			3rd Quarter.			4th Quarter.			Year.			Rate per 1000
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	
Steyning	59	74	133	76	64	140	63	66	129	52	74	126	250	278	528	31·0
Horsham	62	69	131	58	64	122	60	67	127	64	36	100	244	236	480	30·3
Petworth	46	27	73	31	25	56	33	26	59	28	46	74	138	124	262	27·5
Thakeham	37	24	61	23	33	61	23	26	49	33	28	61	121	111	232	28·0
East Preston . .	29	27	56	33	38	71	46	31	77	29	29	58	137	125	262	31·4
Midhurst	50	69	119	46	50	96	58	40	98	41	48	89	195	207	402	28·4
Westbourne . .	31	26	57	28	24	52	21	34	55	30	21	51	110	105	215	28·7
Worthing	47	38	85	38	35	73	40	45	85	37	33	70	162	151	313	25·7
Littlehampton .	17	19	36	8	13	21	16	14	30	16	8	24	57	54	111	27·7
West Worthing	—	—	—	2	—	2	1	1	2	2	4	6	5	5	10	11·7
Arundel	13	8	21	10	7	17	6	9	15	12	6	18	41	30	71	25·8
TOTAL	391	381	772	358	353	711	367	359	726	344	333	677	1460	1426	2886	28·7
In 1876	323	318	641	298	295	593	305	311	616	327	263	590	1253	1187	2440	29·8
In 1877	300	338	638	365	323	688	298	274	572	346	305	651	1309	1240	2549	30·8
In 1878	339	320	659	360	300	660	320	319	639	309	314	623	1328	1253	2581	30·8
In 1879	329	332	661	319	320	639	359	277	636	372	326	698	1379	1255	2634	31·1
In 1880	319	363	682	308	352	660	330	328	658	320	294	614	1277	1337	2614	30·3
In 1881	375	347	722	397	338	735	368	381	749	323	339	662	1463	1405	2868	30·2
In 1882	449	392	841	382	321	703	397	331	728	364	337	701	1592	1381	2973	30·9

TABLE II.—Showing the ages at death in the eight years, 1876-83.

Year.	Population.	Total.	Und 1	-2	-5	-10	-15	-25	-30	-40	-50	-60	-70	-80	-90	-100	100 upds
1877-78	82,610	M. 2057 F. 1860	412 319	95 97	93 86	58 54	37 49	100 85	62 86	118 117	116 113	182 163	262 225	315 264	192 176	15 25	.. 1
1879 ...	84,648	M. 695 F. 597	130 101	27 22	19 30	16 21	10 10	35 40	20 9	37 24	46 41	52 51	102 69	135 103	59 67	7 8	.. 1
1880 ...	86,244	M. 689 F. 598	156 111	42 42	25 25	20 25	12 19	28 40	18 15	29 29	36 28	73 42	91 65	113 95	40 60	6 2	....
1881 ...	94,860	M. 720 F. 603	151 88	29 24	28 18	20 21	9 10	34 28	18 25	44 38	49 36	56 54	91 97	106 99	74 60	11 4	.. 1
1882 ...	96,220	M. 705 F. 671	150 119	43 38	41 32	24 28	11 18	35 31	13 19	41 51	46 40	53 49	100 75	92 101	51 59	5 11	....
1883 ...	100,430	M. 782 F. 705	140 115	29 38	37 38	24 22	9 10	38 40	22 19	56 47	62 45	79 55	84 89	116 109	79 66	7 12	....
	Total	M. 5648 F. 5034	1139 853	265 261	243 229	162 171	88 116	270 264	153 173	325 306	355 303	495 414	730 620	877 771	495 488	51 62	.. 3
	Total, both sexes	10682	1992	526	472	333	204	534	326	631	658	909	1350	1648	983	113	3
	Per 10,000....	10,000	1865	492	442	312	191	500	305	590	616	851	1264	1543	920	106	3

TABLE III.—Showing the mean Male and Female death-rate at different groups of ages in 1879-83 in each sanitary district.

MALES.

LOCALITY.	All ages.	Under 1	1-5	5-15	15-25	25-60	60 & ups.
Steyning	14·8	130·1	14·9	2·9	3·8	9·6	61·3
Horsham	14·9	115·0	11·2	2·8	4·5	9·1	60·0
Petworth	16·3	105·5	9·5	2·4	5·1	10·5	64·6
Thakeham	15·5	76·8	14·8	1·5	3·7	9·9	69·1
East Preston	15·9	109·8	11·8	3·1	4·1	10·6	57·2
Midhurst	15·7	127·3	13·3	2·9	4·0	10·0	62·7
Worthing	16·7	104·4	13·9	2·4	4·9	15·3	63·9
Littlehampton	17·0	140·4	17·4	2·3	4·2	12·9	74·3
West Worthing	17·4	100·0	5·9	2·0	0·0	14·8	137·5
Combined District..	15·6	113·3	13·0	2·6	4·2	10·7	63·1

FEMALES.

Steyning	13·6	91·0	13·2	3·3	5·7	8·4	52·6
Horsham	12·3	68·4	10·3	3·4	5·4	8·1	52·1
Petworth	14·9	83·1	11·6	4·8	6·3	8·3	58·0
Thakeham	14·0	82·0	11·8	3·1	5·9	9·5	54·9
East Preston	14·0	85·7	9·0	3·4	4·3	9·4	59·1
Midhurst	14·7	71·2	11·9	3·6	5·2	7·7	68·5
Worthing	13·4	102·9	16·6	2·2	2·6	8·3	58·2
Littlehampton	12·5	90·2	9·9	2·2	2·4	8·7	54·9
West Worthing	7·2	150·0	0·0	5·0	3·4	4·6	44·4
Combined District ..	13·6	82·7	12·0	3·4	4·7	8·4	57·5

Westbourne R.S.D. and Arundel U.S.D. are not included in this table.

TABLE IV.—Showing the deaths at different groups of ages, the mean male and female population, and the mean male and female death-rate in 1879-83.

MALES.

	All ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 60	60 and upwds
1879	695	130	46	26	35	155	303
1880	689	156	67	32	28	156	250
1881	673	145	55	26	32	156	259
1882	647	138	81	30	33	142	223
1883	702	126	58	31	33	201	253
Total	3406	695	307	145	161	810	1288
Mean	681·2	139·0	61·4	29·0	32·2	162·0	257·6

FEMALES.

1879	597	101	52	31	40	125	248
1880	598	111	67	44	40	114	222
1881	559	81	39	31	28	145	235
1882	611	107	61	43	29	146	225
1883	620	102	64	27	35	148	244
Total	2985	502	283	176	172	678	1174
Mean	597·0	100·4	56·6	35·2	34·4	135·6	234·8

Male Population }	43498	1227	4694	10890	7534	15076	4077
Male death-rate .. }	15·6	113·3	13·0	2·6	4·2	10·7	63·1
Female Population }	43682	1213	47·16	10374	7208	16090	4081
Female death-rate }	13·6	82·7	12·0	3·4	4·7	8·4	57·5

Westbourne R.S.D. and Arundel U.S.D. are not included in this table,

TABLE V.—Showing the death-rate at 12 different groups of ages in the three years, 1881-83.
MALES.

Year.	All ages.	0-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65-75	75-85	85 & upwds.
1881.....	15.2	32.3	3.2	1.6	2.3	6.8	7.7	7.3	13.6	24.0	49.2	122.2	406.2
1882.....	14.6	35.7	3.8	1.9	3.3	5.5	5.5	8.3	12.6	21.9	45.9	108.0	214.2
1883.....	15.6	30.2	3.6	1.5	4.1	4.7	7.6	10.4	18.4	22.1	48.3	135.9	290.0
England (1881)	20.0	56.4	5.9	3.3	4.6	6.2	8.3	13.1	18.1	33.5	65.0	137.5	259.3
FEMALES													
1881.....	12.7	20.1	3.6	1.8	2.2	5.1	6.5	8.0	7.4	27.1	50.6	101.8	236.2
1882.....	13.9	28.6	4.7	3.3	4.6	3.1	6.8	8.6	9.9	18.5	44.0	108.9	263.5
1883.....	14.0	27.9	3.5	1.7	3.5	6.3	5.6	8.1	11.9	22.8	48.4	106.2	250.0
England (1881)	17.8	48.1	5.8	3.3	4.8	6.1	7.8	10.9	14.4	28.3	57.6	122.1	233.4

TABLE VI.—Showing the distribution of the population, as to age and sex in West Sussex and in other districts.

PROPORTION TO 100,000 PERSONS.								
	0-5	5-15	15-25	25-45	45-65	65 & upds.	All ages.	
Combined District	{ M 6786	12443	8635	11353	7644	3060	49921	
	{ F 6803	11852	8235	12317	7722	3150	50079	
Four Urban Districts	{ M 6140	11914	7939	10524	5911	2280	44708	
	{ F 6189	11249	11560	14723	8152	3419	55292	
Seven Rural Districts ..	{ M 6936	12566	8796	11546	8046	3241	51131	
	{ F 6946	11992	7464	11758	7622	3087	48869	
Leeds and Birmingham	{ M 7133	11290	9180	13352	6249	1308	48512	
	{ F 7241	11506	10095	14008	6942	1696	51488	
England and Wales	{ M 6767	11437	9165	12472	6760	2062	48663	
	{ F 6788	11461	9605	13455	7514	2514	51337	

TABLE VII.—Showing the Mean age at Death in 1883.

District.	No. of Deaths	Years lived.	Mean.	Male and Female Mean.
Steyning	279	9283·7	33·3	M. $4940·4 \div 150 = 32·9$ F. $4343·3 \div 129 = 33·7$
Horsham	202	8782·2	43·4	M. $5234·8 \div 122 = 42·9$ F. $3547·4 \div 80 = 44·3$
Petworth	171	7918·1	46·3	M. $4719·6 \div 96 = 49·1$ F. $3198·5 \div 75 = 42·6$
Thakeham	121	5245·4	43·3	M. $2873·7 \div 62 = 46·3$ F. $2371·7 \div 59 = 40·2$
East Preston..	130	5794·4	44·5	M. $2744·6 \div 59 = 46·5$ F. $3049·8 \div 71 = 42·2$
Midhurst	188	8413·5	44·7	M. $3937·0 \div 97 = 40·6$ F. $4476·5 \div 91 = 49·2$
Westbourne ...	120	4943·2	41·2	M. $2688·8 \div 59 = 45·5$ F. $2254·4 \div 61 = 36·9$
Worthing	164	5899·9	35·9	M. $2737·6 \div 79 = 34·6$ F. $3162·3 \div 85 = 37·2$
Littlehampton	55	2498·0	45·4	M. $1248·0 \div 29 = 43·0$ F. $1250·0 \div 26 = 48·0$
West Worthing	12	344·3	28·7	M. $237·0 \div 8 = 29·6$ F. $107·3 \div 4 = 26·8$
Arundel	45	1911·6	42·5	M. $796·5 \div 21 = 37·9$ F. $1115·1 \div 24 = 46·4$
Total	1487	61034·3	41·0	
Male	782	32158·0	41·1	
Female	705	28876·3	40·9	

TABLE VIII.—Showing the Deaths and Death-rate from Zymotic Diseases in 1883, and in the eight years, 1876-83.

Sanitary District.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Enteric or Typhoid.	Other or doubtful.	Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Total.	Rate per 1000 persons living.
Steyning Rural	..	4	7	16	3	1	7	..	7	1	..	..	..	46	2.7
Horsham	..	2	1	..	5	..	1	..	2	1	3	..	2	17	1.0
Petworth	..	..	1	..	1	..	2	..	2	1	2	..	..	9	0.9
Thakeham	..	..	1	2	..	..	2	..	2	..	..	..	..	7	0.8
East Preston	..	6	..	1	..	..	..	..	2	..	..	..	..	9	1.0
Midhurst	5	..	3	2	2	..	1	..	3	..	..	..	..	16	1.1
Westbourne	..	..	..	3	1	..	1	..	2	..	..	..	..	7	0.9
Worthing Urban	..	8	..	..	1	..	2	..	1	3	..	..	..	15	1.2
Littlehampton	..	..	..	..	..	..	..	..	2	..	..	..	..	2	0.5
West Worthing	..	..	..	..	..	..	2	..	..	..	..	..	..	2	2.3
Arundel	..	1	..	..	..	..	..	..	..	..	..	..	..	1	0.3
Total	5	21	13	24	13	1	18	..	23	6	5	..	2	131	1.3
In 1876-79	6	40	73	64	96	4	38	10	103	12	13	5	16	480	1.4
In 1880	..	23	9	12	55	..	15	1	49	1	3	..	3	171	1.9
In 1881	1	1	15	25	10	..	12	1	17	7	7	2	5	103	1.0
In 1882	..	16	15	35	53	..	10	3	19	4	7	1	1	164	1.7
Total in the 8 years..	12	101	125	160	227	5	93	15	211	30	35	8	27	1049	1.4

TABLE IX.—Showing the Zymotic Deaths in each Month in the year 1883.

	January.	February	March.	1st Quarter.	April.	May.	June.	2nd Quarter.	July.	August.	September.	3rd Quarter.	October.	November.	December.	4th Quarter.	Year.
Small-pox .....	..	..	..	1	..	4	1	5	..	..	..	..	..	..	..	..	5
Measles .....	..	..	1	1	1	1	10	11	2	5	1	8	1	..	..	1	21
Scarlatina	6	1	..	7	..	..	..	..	4	1	..	1	4	3	2	5	13
Diphtheria	4	1	..	5	1	1	..	2	..	2	2	6	1	7	1	12	24
Whooping-cough	4	1	3	8	1	1	..	..	..	..	..	2	..	..	..	1	13
Gut Fever {	1	..	..	1	..	..	..	..	..	..	..	1	6	..	2	..	1
	..	1	2	3	..	3	1	4	..	1	..	1	..	..	..	10	18

Diarrhoea .....	..	2	1	3	..	1	1	2	1	7	9	17	1	..	..	1	23
Rheumatic Fever.	..	1	1	2	..	..	..	..	1	2	..	2	..	1	1	2	6
Erysipelas .....	..	..	..	..	..	..	..	..	1	1	2	4	..	1	1	1	5
Pyæmia .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..	1	2
TOTAL.....	15	7	9	31	1	11	13	25	8	19	14	41	13	14	7	34	131

TABLE X.—Showing the Ages at Death from Zymotic or Catching Disorders in 1876-83.

	M. F. Under 1	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
		-2	-5	-10	-15	-25	-30	-40	-50	-60	-70	-80	-90				
Diarrhoea....	59 68	15 6 10 7	2 1	1	1	1	1	1	3	3	3	5	4	6	5		
Whooping- Cough ..	59 59	24 37 21 25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	17 11	18 18	9 13	3 6	1 3	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria ..	4 ..	3 4	23 32	29 36	6 6	4 5	1	1	2	1	1	1	1	1	1	1	1
Scarlatina ..	3 4	4 7	20 34	16 22	4 5	1 1	2	1	1	1	1	1	1	1	1	1	1
Enteric fever..	1	1	1 6	6 4	3 9	11 12	1 4	5 7	6 6	3	3	2	2	1	1	1	1
Erysipelas ..	6 4	2	1	1	1	1	1	1	1	2	5	5	3	2	1	1	1
Rheumatic fever ..	1	1	1	1	2 3	4 3	1	1	4 2	2 2	1	1	1	1	1	1	1

TABLE XI.—Showing the Deaths in each Month in the Eight Years, 1876-83.

MONTH.	1876	1877	1878	1879	1880	1881	1882	1883	Total.	Average Temp.
January	116	103	137	150	126	125	132	127	1016	38·9
February	144	115	126	119	129	118	108	118	977	39·7
March	146	112	103	129	109	126	141	154	1020	41·5
April	124	111	115	130	121	131	98	148	978	47·2
May	120	104	98	113	115	117	118	137	922	52·7
June	95	109	109	84	97	106	103	139	842	59·8
July	78	88	100	75	92	93	100	107	733	62·5
August	131	84	98	92	106	110	112	108	841	61·9
September	84	94	131	99	116	104	117	107	852	57·5
October	107	96	103	82	85	109	100	104	786	50·9
November	102	86	103	88	100	98	116	125	818	42·8
December	104	110	131	131	91	86	131	113	897	40·8
TOTAL	1351	1212	1354	1292	1287	1323	1376	1487	10682	—

The average temperature is taken from the records at Greenwich for the Twenty Years, 1849-68.

TABLE XII.—Showing the Deaths and Death-rate from all causes and from various causes in the combined District in the Elght years, 1876-83.

Year,	Annual Number of Deaths.					Population.	Annual Rate per 100,000 living.				
	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart-Disease.		All Diseases.	Zymotic Disease.	Phthisis.	Lung-Disease.	Heart-Disease.
1876	1351	169	139	176	117	81703	1654	206	170	215	143
1877	1212	94	152	138	111	82610	1467	113	184	167	134
1878	1354	138	151	513	98	83627	1619	165	180	254	117
1879	1292	79	143	216	134	84648	1526	93	168	255	158
1880	1287	171	129	204	89	86244	1492	198	149	236	103
1881	1323	103	117	193	128	94860	1396	108	123	203	135
1882	1376	164	131	191	120	96220	1430	170	136	198	124
1883	1487	131	158	209	134	100430	1480	130	157	208	133

Table XIII.—Showing the Causes of Death in 1833.

Causes of Death.	Steyning R.S.D.	Horsham R.S.D.	Petworth R.S.D.	Thakeham R.S.D.	East Preston R.S.D.	Midhurst R.S.D.	Westbourne R.S.D.	Worthing U.S.D.	Littlehampton U.S.D.	West Worthing U.S.D.	Arundel U.S.D.	Total.		Total, both sexes.
												M.	F.	
All Causes.....	279	202	171	121	130	188	120	164	55	12	45	782	705	1487
Zymotic Diseases.....	46	17	9	7	9	16	7	15	2	2	1	64	67	131
Phthisis.....	29	24	15	15	9	20	10	23	5	2	6	85	73	158
Disease of the Brain	33	24	36	17	21	24	17	32	7	1	6	104	114	218
" Heart.....	23	17	18	9	14	23	9	15	3	1	2	61	73	134
" Lungs	37	32	26	20	13	25	20	19	9	..	8	132	77	209
" Digestive Organs	11	12	6	9	6	10	10	6	2	1	2	38	37	75
" Urinary	4	2	3	4	4	2	4	3	1	..	1	20	8	28
" Uterine .....	..	..	..	..	..	2	3	..	..	..	..	..	5	5
Childbirth	4	..	1	1	1	2	..	1	1	..	..	..	11	11
Infantile Debility and Atrophy.	21	10	8	7	9	6	4	11	2	1	5	43	41	84
Premature Birth	9	12	6	4	3	7	5	2	1	2	..	28	23	51
Old Age.....	29	23	26	6	26	28	9	8	12	..	9	85	91	176
Accident	6	8	5	5	2	5	2	6	..	..	..	30	9	39
Suicide	3	1	2	2	2	..	1	2	1	..	..	10	4	14
Other causes	24	20	10	15	11	18	19	21	9	2	5	82	72	154

TABLE XIV.—Showing the Deaths from Accidents in the Eight years, 1876-83.

Mode of Death.	Steyning R. s. D.		Horsham R. s. D.		Petworth R. s. D.		Thakeham R. s. D.		East Preston R. s. D.		Midhurst R. s. D.		Westbourne R. s. D.		Worthing U. s. D.		Littlehampton U. s. D.		West Worthing U. s. D.		Arundel U. s. D.		Total.	Total both sexes.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
By Drowning ..	3				1	1	3		1		1				2								11	2	13
" Suffocation ..			1	1											1								2	2	4
" Falls		1	2				1				2		1		3								10	1	11
" Being run over ..	1				1																		2	2	2
" Railway.....			2																				2	2	2
" Burns & scalds ..			1	1			1					1											2	4	6
" Poison													1										1		1
TOTAL	5	1	6	2	2	3	5		1	1	3	2	2		6							30	9	39	
In 1876-79.....	23	4	18	6	14	4	6	3	13	3	10	4			9	1	6	2					99	27	126
" 1880	5		5	1	3		4		2	1	1				1		2						23	2	25
" 1881	1	2	4	1	2	1	4		3	1	2		1	2	2	2							19	9	28
" 1882	3	2	8	2		1	2	2	1		4	1	1	1	2	1	1						22	10	32
TOTAL IN 8 YEARS	37	9	41	12	21	9	21	5	20	6	20	7	4	3	20	4	9	2					193	57	250

TABLE XV.—Showing the Deaths by Suicide in the nine years, 1875-83.

Mode of Death.	Steyning R.S.D.		Horsham R.S.D.		Petworth R.S.D.		Thakeham R.S.D.		East Preston R.S.D.		Midhurst R.S.D.		Westbourne R.S.D.		Worthing U.S.D.		Littlehampton U.S.D.		West Worthing U.S.D.		Arundel U.S.D.		Total.		Total both sexes.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
By Shooting.....	1	..	1	..	..	1	..	..	2	..	..	..	..	1	..	..	1	..	..	..	..	..	2	..	2 5 3 3 1
By Drowning .....	..	1	..	1	..	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	2	..	2 5 3 3 1
By Poisoning .....	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2	..	2 5 3 3 1
By Hanging.....	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	3	..	2 5 3 3 1
Fall from window..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2 5 3 3 1
Total	2	1	1	1	2	2	2	2	2	..	..	1	1	1	1	1	1	1	..	..	..	10	4	14	14
In 1875-77	4	1	6	3	3	1	3	5	1	1	1	..	..	..	1	1	1	1	..	..	..	23	4	27	27
In 1878	1	..	1	1	1	..	..	..	..	1	1	..	..	..	1	1	..	..	..	..	..	5	5	5	5
In 1879	3	1	2	1	..	1	1	..	..	2	2	2	1	..	1	1	1	1	..	..	..	9	5	14	14
In 1880	3	..	..	..	..	..	2	..	..	1	1	1	..	..	2	2	2	2	..	..	..	6	1	6	6
In 1881	2	..	2	3	3	3	1	1	1	..	3	1	..	..	2	2	2	2	..	..	..	14	1	15	15
In 1882	3	1	1	..	..	..	..	..	1	1	3	1	..	..	1	1	..	..	..	..	..	8	3	11	11
Total in 9 years ..	18	3	12	8	8	1	7	1	9	2	8	4	1	9	2	9	2	4	1	..	..	75	17	92	92

TABLE A.—Showing the Deaths during the year 1883 in the Combined Sanitary ties, and showing also the Population of such

Names of Localities adopted for the pur- pose of these Statis- tics ; public institu- tions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							Small Pox.	
	Census 1881	Estimated to middle of 1883.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11	12	13
Steyning Rural Sanitary District.	16325	17000	528	264	58	33	21	21	61	70	Under 5. 5 upwds	.....
Horsham Rural Sanitary District.	15426	15840	480	215	32	15	9	9	64	86	Under 5. 5 upwds	.....
Petworth Rural Sanitary District.	9595	9500	262	171	25	13	6	6	41	80	Under 5. 5 upwds	.....
Thakeham Rural Sanitary District.	8285	8280	232	121	19	11	3	7	32	49	Under 5. 5 upwds	.....
East Preston Rural Sanitary District.	8025	8330	262	138	21	11	5	5	37	59	Under 5. 5 upwds	.....
Midhurst Rural Sanitary District.	13933	14210	402	188	27	14	7	13	42	85	Under 5. 5 upwds	5
Westbourne Rural Sanitary District.	7420	7490	215	120	21	12	7	7	26	47	Under 5. 5 upwds	.....
Worthing Urban Sanitary District.	10976	12180	313	162	33	22	4	8	51	44	Under 5. 5 upwds	.....
Littlehampton Urban Sanitary District.	3926	4000	111	50	11	2	2	1	12	22	Under 5. 5 upwds	.....
West Worthing Urban Sanitary District.	689	850	10	12	2	1	1	—	7	1	Under 5. 5 upwds	.....
Arundel Urban Sanitary District.	2748	2750	71	44	6	8	—	2	10	18	Under 5. 5 upwds	.....
TOTALS	97348	100430	2886	1485	255	142	65	79	383	561	Under 5. 5 upwds	5
Deaths occurring outside the district among persons belonging thereto				23	—	—	—	1	8	14	Under 5. 5 upwds	
Deaths occurring within the district among persons not belonging thereto				35	1	2	1	5	10	16	Under 5. 5 upwds	

et of WEST SUSSEX, classified according to Diseases, Ages, and Localities and the Births therein during the year.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

	Diphtheria.	Croup (not "spasmodic.")	Whooping Cough.	Con. Fevers.				Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Phthisis	Bronchitis, Pneumonia, & Pleurisy.	Heart Disease	Injuries.	All Other Diseases.
				Typhus	Enteric or Typhoid.	Other or Doubtful.	Diarrhoea and Dysentery.											
5	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
6	4		3		2		6								19			48
1	12			1	5		1		1					24	17	21	8	81
			5							2					9		4	27
1					1		2		1	2		2		25	25	18	7	82
1			1				2								4		3	27
					2				1	2				15	22	18	4	69
1	1						1								6			21
	1				2		1							15	14	9	7	42
							2								5			21
	1													9	10	14	3	67
3	1		2												9		1	25
	1				1		3							20	16	23	4	74
	1		1				2								6		1	22
	2				1									10	14	9	2	49
3			1				1								10		1	36
2					2				3					23	9	14	7	47
							2								4			7
													1	5	3	3	1	24
																1		2
					2									2		1	1	3
1															5			8
														6	3	2		19
4	7		13		2		16			2					77	1	10	244
7	17			1	16		7		6	4		2	1	154	133	133	44	556
														5	3	2	1	12
			1															2
										1				3	5	4	3	16

TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the Sanitary District of WEST SUSSEX, classified by Localities.

NAMES OF LOCALITIES. 1	NEW CASES OF SICKNESS, IN PERSONS BELONGING TO THE SANITARY DISTRICT OF WEST SUSSEX, CLASSIFIED BY LOCALITIES.						
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough.
	12	13	14	15	16	17	18
Steyning R. S. D.	Under 5 5 upwds.		1 2	7 11	4 10		1 1
Horsham R. S. D.	Under 5 5 upwds.		4 8	1 7			5 3
Petworth R. S. D.	Under 5 5 upwds.			3 12			10 3
Thakeham R. S. D.	Under 5 5 upwds.						
East Preston R. S. D.	Under 5 5 upwds.		2 9		1 1		
Midhurst R. S. D.	Under 5 5 upwds.	1 17	1 2	6 19	2 4		1 3
Westbourne R. S. D.	Under 5 5 upwds.			1 2			3 2
Worthing U. S. D.	Under 5 5 upwds.		4 13				
Littlehampton U. S. D.	Under 5 5 upwds.			1 1			
West Worthing U. S. D.	Under 5 5 upwds.						
Arundel U. S. D.	Under 5 5 upwds.		2 2				
Totals.....	Under 5 5 upwds.	1 17	14 53	19 57	7 21		20 7

SOURCES OF INFORMATION :—In Workhouse and Workhouse Infirmary, Out-Patient

Medical Officer of Health, during the year 1883, in the Combined
according to Localities and Diseases.

TO THE DISTRICT DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS
OF AGE.

OTHERS.		Diarrhoea and Dysentery	Cholera	Rheumatic Fever.	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox, or Pneu- monia, which the Medi- cal Officer of Health thinks well to record.	
0	21									
		1								
	4	18		1	3					
		7								
	3	25		1	4					
	1	6								
		25			3					
	2	3			1					
		1								
		5			2			1		
		3								
		8								
	2	3								
	6	3			5					
		5			1					
		2								
		3								
		3						1		
	3	23								
	15	98		2	19			2		

Among Out-door Paupers, 3063. As In-Patients of Hospitals, 88. As
Hospitals, 1277.

